STRUCTURATING ACTIVITY COORDINATION DURING CHANGE IN A FACILITIES MANAGEMENT ORGANIZATION

by

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STATEMENT OF THESIS APPROVAL

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ABSTRACT

This thesis project observes communication processes within and between activity systems in a large facilities management organization during a period of strategic change implementations. Twenty-seven interviews with employees from various divisions were analyzed using the constant comparative approach. Findings were informed by emergent themes in terms of important concepts in structurating activity theory. This approach aimed to help understand activity coordination and knowledge construction within and between systems. Contradictions were explicated pertaining to inclusivity and exclusivity. Tensions persist in how systems coordinate around and with conflicting objectives and activities. Practical suggestions and theoretical contributions are discussed.

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ABBREVIATIONS

Table of Acronyms	
Acronym	Term
CCO	*Communicative Constitution of Organizations*
ST	*Structuration Theory*
CHAT	*Cultural-Historical Activity Theory*
SAT	*Structurating Activity Theory*
CoP	*Communit(ies) of Practice*
FM	*Facilities Management*

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CHAPTER 1

INTRODUCTION AND LITERATURE REVIEW

Much of the existing scholarly literature on organizational change can be categorized under one or more of several themes (Lewis, 2011). Studies generally focus on implementers' strategies, recipients' responses, or "successful implementation" - meaning that implementers accomplish their personal goals. Change is not always productive, but it can be destructive, or part of a learning process. As members interpret, talk about, and adjust to change mandates, they construct social affiliations and divisions regarding who they are, with whom they work, what their work entails, and how they will adjust. These boundaries between groups may be visible, invisible, or blurred (Lewis, 2011).

Observing communication's constitutional potential in group change and interaction requires that it be foregrounded as central (Kuhn, 2012). Change is a fluid process that evolves over time (Jarzabkowski, 2008). Outcomes hinge on how efforts are perceived and carried out by various groups in an organization. Information sharing, goal setting, collaboration, negotiation, and other communicative factors play key roles regarding how groups collectively interact to bring about planned change.

This thesis observes subgroup processes in a large organization during a period of change, specifically communication behaviors and outcomes for small work divisions as they collaborate with and dissociate from other workers. The organizational venue for

this observation will be a North American university-based, nonprofit Facilities Management department. Members actively construct and are compelled to construct relationships with their own and other work groups in the organization. “Facility management encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, processes and technology” (Roper, Kim, & Lee, 2009, p. 9). Subgroups within a department evolve, combine, clash, and connect in novel ways during integration and restructuration.

This project will focus on communicative interaction within and between subgroups (or activity systems) during a management-initiated strategic plan implementation. The plan aims at reorganizing functions of work groups to enhance collaboration. Knowledge construction and sharing through collaborative activity coordination are important concepts that require extensive treatment. It is helpful to consider a work group in this context as a community that may or may not work together, but shares one or more activities around which they coordinate knowledge, ideas, and strategies for improving their expertise. Communities, such as these work groups, develop unique knowledge, norms, and identities over time. These concepts will be elaborated in detail corresponding with theoretical application in later sections of the literature review.

Issues accompanying this complex process will be analyzed using structurating activity theory (SAT; Canary, 2007, 2010a), a recently developed integration of Giddens’ (1984) structuration theory (ST) and Engström’s (1999) articulation of Cultural Historical Activity Theory (CHAT). I am using SAT as it is a vanguard to dynamic ways of conceiving individual agents in their relationships with various social groups.

This approach aims to tease out both the subtle and defining elements of communicative activity in a conglomeration of people, rules, resources, task delegation, and real outcomes across space and time. In essence, SAT highlights how individuals creatively construct and are constrained their social worlds. Conceptual elaboration will be offered in following sections of the literature review. Prior to applying a cogent theoretical lens, introductory background information pertaining to broad concepts such as organization, communication, and change is advanced. A rationale will segue directly from the background, accounting for this project's value and contribution. Table of Acronyms, listed previously, provides terms and acronyms used throughout the project.

Rationale

Several reasons warrant this thesis project. First, scholars previously called for theory that can be extended to include reciprocally influential relationships as they are used to analyze innovation in organizations (Coopey, Keegan, & Elmer, 1998). Second, the communicative constitution of organizations (CCO) perspective has paved the way for negotiating analytical conundrums, including micro-macro divides and interdisciplinary boundaries between communication and organization studies. And third, while other broad paradigms relate to CCO, such as structuration theory (ST), important concepts remain vague and underdeveloped without comprehensive elucidation of complex details in activity systems (Haslett, 2013).

How to Conceive an Array of Change Features

Scholars call for studies to extend past claims and specify models of specific negotiation processes that balance membership constraint and enablement (Scott &

Myers, 2010). Canary (2007, 2010a) developed a widely applicable theory that answered these calls by explaining agency through communication-centered knowledge construction in policy contexts. She implied that the instrument need not be confined to observing policy alone, but can extend to other organizational contexts, such as strategic planning.

Others have recommended that research should consider whether ST processes vary depending on a weakly or strongly linked system (Whitbred, Fonti, Steglich, & Contractor, 2011). Facilities Management is a widely dispersed organization, including hundreds of full-time skilled labor employees. Dozens of workgroups carry out exclusive specialized tasks to maintain and build the university for which they are responsible. Many groups coordinate with each other well. Others do not, and may find themselves internally dysfunctional. Theory-driven elucidation will address weakly versus strongly linked work teams in terms of the extent to which they are inclusive or exclusive, and the degree of formalization of their structures.

Jarzabkowski concluded that very little research incorporates full explanations of managerial behavior during implementations. He also speculated that "as knowledge-based work grows increasingly important in many industries, the findings may have relevance to many organizations that share characteristics with universities" (2008, p. 643). This project will not only observe managerial behavior, but communicative activity across groups and hierarchical positions. Also, this thesis will relate directly to characteristics of a university organization by observing a large university-based Facilities department. Even so, remaining questions regarding strategy shaping, including what managers actually do in the strategy process, and how administrative procedures

intersect with other elements in a system (Jarzabkowski, 2008), can be taken up by an SAT approach to strategic planning.

Others call attention to key concepts needing investigation in the strategy process, including role negotiation, formal versus informal communication (Scott & Myers, 2010), internal rules resulting from individual actions, levels of analysis (Pozzebon, 2004; Whitbred et al., 2011), and interorganizational knowledge alliances (Ropes, 2009). Many propose that explicating these conditions will help organizations improve learning and capabilities. The encompassing nature of SAT is appropriate for addressing some of these and similar phenomena, as theories that represent ST adaptations remain grounded in the balance between structure and agency while further developing the theory through conceptual and empirical contributions (Pozzebon, 2004).

This thesis also intends to support Canary's (2010a) suggestion that SAT can be applied to many types of organization-specific studies as it concerns structural- or process-oriented communicative phenomena. In summary, there is a need for more communication-centric studies in the organizational change literature. As group communication is inherently complex, change must be understood by observing how individuals identify with and relate to particular groups within their organizations. Important theoretical developments have emerged recently for understanding communicative dynamics in organizational processes (Canary 2010a).

Theoretical Foundations

Understanding organizational change processes requires a complex theoretical frame, especially if a strategic implementation extends across time, space, and organizational structure. The perspective I espouse in this project concerns three robust

lenses: ST, CHAT, and SAT. Although it is not within the scope of this thesis to expound the intricate components of each contributing theory, I will highlight key concepts from each as they pertain to the analysis at hand.

Conceiving the Organization

An organization can be considered a relatively stable "system with boundaries" (Schoeneborn, Blaschke, Cooren, McPhee, Seidl, & Taylor, 2014, p. 294) that self-structures through intricate and sustained operations of human communication. A complimentary view of communication concerns symbolic action that invokes meaning, power, legitimation, and constituting properties among humans (Schoeneberg et al., 2014). McPhee and Zaug (2000) argue that organizational operations entail a complex cycle of broad communication flows, or ongoing activities. Intent to communicate is not necessary for an organization to emerge, but a stable system of relationships is required, evident through recursive interplay between organizational self-structuring and agentic action (Giddens, 1984). Seeing communication as central to organizing processes means espousing to a *Communicative Constitution of Organizations* (CCO) (McPhee & Zaug, 2000) perspective. That is, an organization is grounded in action (Fairhurst & Putnam, 2004) to the extent that communication facilitates and defines system construction (McPhee & Zaug, 2000).

Flows of communication. Importantly, this perspective holds that complex processes of communication must be sufficiently linked in an indeterminate, dynamic form. Order ensues from subtle, as well as from substantive events (Weick, Sutcliffe, & Obstfeld, 2005). When group communication perpetuates itself through time in inter-locking events (Schoeneborn et al., 2014), organization emerges. Although relative

stability is required for an organization to exist and subsist (McPhee, 2004), organizations are more fluid than ever before. Structure (e.g., rules and resources; Giddens, 1984) – another term that will be given added attention– remains vulnerable to transformation as actors seek to influence their world (Coopey, Keegan, & Emler, 1998). For instance, in terms of strategic change, a manager shapes the organization when he or she reforms old conditions and work groups to reflect shifting market demands. However, it is possible that a manager's work identity can be mutually shaped simultaneously as he or she influences employees' identities (Coopey et al., 1998).

Four fundamental flows of communication characterize a subsisting organization, as indicated by CCO. Three of them are vitally important for understanding this project, and how SAT can be operationalized to understand change in a Facilities Management organization. These include membership negotiation, self-structuring, activity coordination, and institutional positioning. Activity coordination and membership negotiation regard how communication spurs interaction within and between systems, and who is involved in (or allowed to) participation (McPhee & Zaug, 2000). Self-structuring and institutional positioning indicated structural influences outside fluid borders that construct how the organization differentiates itself from others, which is largely determined by its goals.

Due to these interdependent, clashing processes, the nature of work is constantly in flux and up for interpretation. Individual work responsibilities are subject to reorganization, outsourcing, or liquidation at any point in time. Change is not confined to individuals, but extends to group, organizational, and interorganizational levels. Work that was once assigned to individuals has been replaced by machines, or outsourced to

distant places, and groups are now conceived as evading boundaries of time and space. Conventional forms and ways of organizing also have been reconsidered, which has resulted in CCO becoming an increasingly popular theoretical paradigm for addressing epistemological, ontological, and methodological dimensions of organizations (Schoeneborn et al., 2014). According to Lewis (2011), communication is the impetus of change in work life. As organizations are communicatively constituted (Kuhn, 2012; McPhee & Zaug, 2000), so too is all change that occurs within organizations. When change is intended, but slow, one must assume that certain constraints are embedded in communication among members.

Constraint and enablement are apparent at least in part in how organizational actors are both limited and empowered in various ways to develop and share knowledge (Canary & McPhee, 2010). Agents' knowledgeability is seen as facilitating interactions among inclusive groups, exclusive groups, and effective relational repairs (developing groups) (Haslett, 2013). For this project, member activity concerns the extent to which and how groups collaborate knowledge and develop their attitudes toward strategic plan implementation.

Observations will be analyzed using reference to relevant concepts from SAT. SAT (Canary, 2007, 2010a), which reflects a CCO perspective, is a relevant framework from which to approach how work groups associate with and dissociate from one another during a management-initiated reorganization effort within a Facilities Management department. The theory was originally applied to policy knowledge contexts. This study demonstrates SAT's construct reliability by extending it to an organizational change context, specifically oriented to inclusive versus exclusionary divisional work practices,

as well as other emergent themes. This study's design coincides with Canary's (2010a; Canary, Riforgiate, & Montoya, 2013), as it was designed to investigate what types of communication processes constrain or enable barriers to knowledge sharing, and what kinds of activity interaction can be conceived among groups (Canary 2010b). Because SAT is an integration of structuration theory (ST) and cultural-historical activity theory (CHAT), relevant constructs from each of those foundational theories are reviewed below, followed by a description of SAT.

Structuration Theory (ST)

In his seminal work, *The Constitution of Society,* Anthony Giddens (1984) called attention to the flaws of functionalism by pondering interplay between subjective and objective forces in social life. He famously coined the phrase *duality of structure* to consider how macrolevel ordering and individual agency intersect to produce action. "In order to 'bring off' the interaction, participants make use of their knowledge of the institutionalized order in which they are involved in such a way as to render their interchange 'meaningful'…*there is no other* way for participants in interaction to render what they do intelligible and coherent to one another" (Giddens, 1984, p. 331). In his view, agents are both endowed with and acquire knowledgeability, which is reflexively tied to social activity.

Knowledge is filtered by capabilities for disseminating or utilizing knowledge through differential power –calling attention to how each individual is uniquely situated in interaction (Giddens, 1990). Structure is adjacent to agency, inextricably bound together in tension, mutually influencing one another in social activity. Structure concerns rules and resources, or can be thought of as schemas dictating the *what* and *how*

of action. In this sense, knowledge is also bound with structure, indeed is "conceived as existing in practices" (Canary & McPhee, 2011, p. 8). As Giddens (1984) argues that social practices are traced to language, one must conclude that an observation of language in interaction (i.e., communication activity) is key to understanding how knowledge is communicatively instantiated –observable only in action. As knowledge functions as a form of structure, it behooves us to consider the scope of structure.

Structure, as rules and resources, is not material, but exists only as memory traces in the mind of the actor (Giddens, 1984). Three dimensions are manifested as agents call on structural remnants during activity. These dimensions –legitimation, signification, and domination– are always simultaneously present in reality, but can be conceptually parsed (Canary, 2010a).

Legitimation refers to authentic action, and is manifested at a system level in the form of norms. In short, legitimation is normative expected behavior that gets ingrained in how action is brought about. Signification involves structures of meaning, or how people sign or interpret information. Take, for example, an email message written in all-caps letters. This style often represents anger, and might be interpreted as such.

Domination relates to the dimension of power or control, and particularly how that power is distributed via differing forms of resources. Two types of resources comprise efforts of domination –allocative and authoritative. "Allocative resources refer to capabilities – or, more accurately, to forms of transformative capacity – generating command over objects, goods or material phenomena. Authoritative resources refer to types of transformative capacity generating command over persons or actors" (Giddens, 1984, p. 33). Differences between allocative and authoritative resources rest in the

distinction between materiality and sociality. The three dimensions of legitimation, signification, and domination together say much about the structure and outcome of a particular activity.

Relatively patterned and engrained, structures encourage people to act in ordered ways (Giddens, 1984). For an actor to bring about a social practice, they must recall and act out a set or sets of rules. These frames for doing shape and are recursively shaped by the agent in situ, and although reproduction is normative, structural transformation often accompanies action. In these ways, it is helpful to consider ST a process theory that leaves room for a wide range of epistemological developments. Practical application of ST is necessary to make empirical organizational research more feasible –but ST is a solid foundation from which to observe practices that explain intraorganizational change (Hond, Boersma, Heres, Kroes, & van Oirschot, 2012). That change may be structural in nature, and also involve other modes (or mediating realms) of an activity system. In any case, "the driver of change is in the action itself" (Hond et al., 2012, p. 256).

Giddens' propositions have been extended to encompass a wide, interdisciplinary theoretical landscape. One advantage of his framework is that it avoids dichotomies, or leaves room for many paths to understanding the possibilities of ongoing human activity (Pozzebon, 2004). However, appropriate methodologies require sensitivity to the afore-mentioned structural dimensions of legitimacy, meaning, and control (Heracieous, 2013). CHAT provides the unit of analysis for concepts of structuration to be precisely observed –the activity system.

CHAT

CHAT provides arguably one of the best units of analysis in response to scholarly research calls for more complex, comprehensive models of organizational processes – change processes especially (Foot, 2014). The descriptive model is an *activity system*, which is an arrangement of interacting components inherent to bringing about a given social activity (or set of activities). While it is most helpful for a longitudinal study (as presented in SAT) (Engestrom, 1999), this study will conduct a retrospective analysis, for which the model is also reasonable (Foot, 2014). An adapted illustration of an activity system is given in Figure 1.1, with explanatory notes included.

Engström (1999) articulated well the various components of an activity system. Using an activity system orients us to some highly important organizational aspects impacting/impacted in a change process –community, division of labor, rules, and instruments (resources) as the system orients toward an object and an eventual outcome. A community in an activity system is similar to a "community of practice," to the extent that each term is primarily interested in the fact that a group of people gravitate towards a common interest or goal (Wenger, 1998). Division of labor is the hierarchical and horizontal features of formal organizational structure (Canary & McPhee, 2009), dimensions CHAT is well equipped to dissect (Foot & Groleau, 2011). This element pertains to how tasks are delegated, and which defining characteristics differentiate groups and job titles. Using Giddens' (1984) terminology, the rules of an activity system translate to "structure" insofar as they relate to system-specific ways activity is carried out. The subject is the preferred point of view from which to perceive the object, or focus of the community. Finally, the outcome is what results from the system's activity.

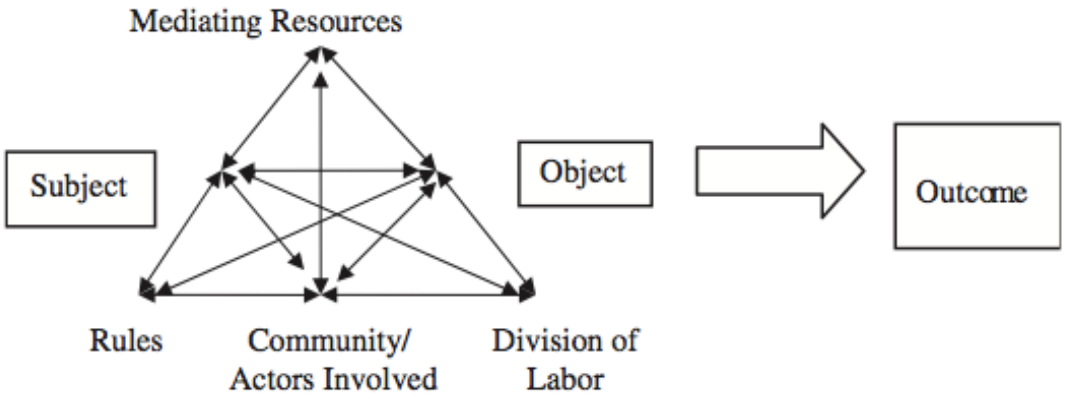

Figure 1.1. Activity system. from Canary, H. E., & McPhee, R. D. (2009). The mediation of policy knowledge: An interpretive analysis of intersecting activity systems *Management Communication Quarterly*, 23, p. 153.

No element of an activity system affects the outcome of activity in isolation (Canary, 2010a). The system must function holistically at all times. Using an activity system as the unit of analysis avails crucial interdependent phenomena for observation, including the kind of communication practices that can, for example, differentiate between success and failure for a community (Engström, 1999). Engström posits that analysis of a system calls to attention productive- and power- laden aspects of organizational communication –or, in other words, analytically distinguishable structural dimensions are exposed.

SAT

Activities, as systems, depend on communication to bring about their overarching purpose, which is to produce action (Canary & McPhee, 2009). Action implies learning. "Learning does not alter our overall ability to focus attention but rather develops various abilities to focus attention on a variety of things" (Vygotsky, 1978, p. 83). Inevitably, as we gain, exercise, and share knowledge, we acquire new rules and resources (structures) for actively participating in the social world. When learning, or ongoing activity, is

considered at the system level, structural adaptation becomes a collective ordeal. When intersystem action is observed, resources may be shared, negotiated, hoarded, or neglected. Resource allocation at the intersystem level introduces increasingly dynamic and complex communication processes. Established organizations usually contain a wide range of interrelated activity systems (Canary et al., 2013).

SAT applies CHAT by observing layering of knowledge in distanciated (extended) activity within and between interrelated activity systems (Canary, 2010a). Canary describes the deeper connection between SAT and ST by highlighting reflexive links among various hierarchical and horizontal levels within an organization. In the case of Facilities Management, this includes members from diverse positions across and within many different systems. Knowledge processes through activity coordination highlight lay-expert interactions (Canary & McPhee, 2009), as members range from front-line employees to tenured managers.

SAT, as a synthesis of Structuration and Cultural-Historical Activity Theories, is outlined as follows:

Six propositions of SAT.

> 1: Knowledge construction is situated within particular social contexts, with social structure enabling and constraining the knowledge construction process.
> 2: Elements of systems of ongoing activity mediate situated action and interaction, such that system elements shape how and what [change] knowledge is constructed within and between activity systems.
> 3: Mediated activity draws on social structure as it also reproduces and transforms structure over time through system transformations.
> 4: Contradictions are generative mechanisms for the communicative construction of [change] knowledge as individuals interact to resolve contradictions in the [change] process.
> 5: [Change] knowledge constructed between systems is mediated by elements of intersecting activity systems.
> 6: The construction of [change] knowledge between intersecting activity

> systems is constrained and enabled by structural features, while at the same time constructed knowledge produces, reproduces, or transforms social structure.
>
> Adapted from Canary (2010a, pp. 31, 34, 36, 37)

Propositions of SAT can be summarized by also applying Canary's (2010a) rationale for investigating policy to a strategic change context: (a) strategic plans enable and constrain a number of organizational processes, (b) span intraorganizational boundaries, and (c) are discursive in nature. What these positions mean is that otherwise elusive processes of social boundary construction between systems in the Facilities Management department can be analyzed and understood. Making sense of interacting systems implies recognizing that activity systems influence each other in dramatic ways, simultaneously enabling and constraining the boundaries that are set. Regardless of who thinks they are in control of the plan implementation, actors gain knowledge through activity, and consequentially utilize gained knowledge in a continuous and cyclical pattern of communicating joint and individual learning (Canary 2010a).

Systemic activity contradictions. By retrospectively examining interactions within and between work groups, specific communication strategies should emerge, as well as generative system contradictions (Canary, 2010a). In a recent application of her theory, Canary (2010b) observed 100 professionals, teachers, students, and parents during a government policy process. She found several contradictions and specific communicative behaviors among and within the systems. The five primary communication processes included identifying priorities, expressing lack of knowledge, offering explanations and clarifications, expressing difference, and posing potential consequences (Canary, 2010b). This study will use the same tools to determine communication activities and contradictions that may arise as work groups, as activity

systems, coordinate and interact.

When assessing knowledgeability at the intergroup level, communication will reveal standardized patterns of interaction (Erskine & Meyer, 2012). Contradictions are organic in communicative activity, and will be observable in the layering of the organization (Foot & Groleau, 2011). Witnessing inclusivity and exclusivity during activity is one manifestation of system-level contradictions, which are indicated by the CHAT perspective. Structural-level contradictions (exterior forces impacting interdependent systems) can be understood in terms of ST's treatment of institutional or societal rules and resources interplaying with other mediating elements. Various types of contradictions are explicated in detail in Discussion and Conclusions, but they are briefly addressed here.

Primary contradictions ensue inherently within an activity system. Although they do not always transform system structure, they always derive from it. Secondary contradictions appear when new elements are introduced to the existing system (Canary, 2010b). Primary contradictions can transform structures, and secondary contradictions result from new elements transforming process when the system is slow to orient toward a focal object. If a new object is sought after in activity (Foot & Groleau, 2011), tertiary contradictions might arise. If central activity in one system does not align with another, a quaternary contradiction can occur, and if not negotiated, might hinder coordination within interdependent systems. In all cases, contradictions can facilitate new forms of activity, and reshape a system in subtle or dramatic ways.

Scholars agree that structuration-based theories offer promising approaches for studying emergent systems of communication (Whitbred et al., 2011) and interactive,

continuous group processes (Scott & Myers, 2011). SAT is a suitable synthesis for analyzing emergence and interactivity in continuous change. SAT's wide applicability is not limited to policy contexts alone. Consider Canary's expansive definition of policy**:** "Dynamic processes that include texts, practices, and decisions that organize action across contexts" (2010a, p. 24). Although the situation at the university Facilities Management department qualifies as a *policy* by Canary's definition, it should be considered broadly as a strategic plan. The term more accurately reflects the nature of a change process, which is defined by Zorn, Christensen, and Cheney as "any alteration or modification of organizational structures or processes" (1999, p. 10). As definitions of policy and change are complementary, so is SAT to the organizational context in question. As Canary and McPhee (2009) stated, "Examining communication within and between activity systems can identify knowledge resources as well as communicative strategies" (p. 152). This study extends SAT by demonstrating its relevance for contexts outside policy knowledge.

Conceptualizing Work Groups

Activity Systems

Appreciating the value of using the concept of 'activity system' in analysis requires a look at similar contexts of purposeful group interaction. Most rival among them is 'community of practice', or CoP (Wenger, 1998), which is a predominant term in organizational learning and change literature. This vein of study is popular enough to warrant making a conceptual and analytic distinction between it and my chosen frame of activity systems. Conceptual contradictions and debates include important elements missing from CoPs that activity systems include, how applicable CoPs are to activity

systems, and what from the CoP literature is and is not valuable from an activity system frame.

Tackling communicative complexities and tensions within intraorganizational consortiums at Facilities Management necessitates intricate conceptualization of work groups and the contexts in which they are embedded. Initially, CoP appeared to be a relevant application. However, upon further consideration, I realized this construct's relative incommensurability with SAT, as well as its internal limitations. Elaborating on activity systems from others who build on Engström's perspective in comparison with the CoP literature should highlight the strength of SAT, as well as provide background for incorporating key insights from CoP without being confined to this construct for articulating findings.

Communication in and across systems takes place among what SAT terms *communities* (Canary, Riforgiate, & Montoya, 2013), which should not be confused with CoP's use of the term. Communities as defined by CoPs are unique, while not altogether different than communities in activity systems. However, a community is the focal unit of a CoP, whereas it is simply one of several elements in an activity system.

However, community is a vital component in this project, as work group boundaries and interaction will be a major focus of analysis. Lave and Wenger (1991) describe a CoP as a group in which membership is negotiated by the extent to which participants develop shared ways of doing, distribute information, establish roles, and use the same tools, stories, and language. While all these characteristics can be important in a community within an activity system, other essential organizing components are addressed in activity systems. This thesis is concerned with skilled project teams, whose

knowledge construction, sharing, as well as coordination is nearly always mediated – whether by technology, language, rules, divisions of labor, or other systems (Boer, 2005).

Because tensions will pervade how teams experience the change process at Facilities, a model that foregrounds that tension should be the ideal choice for analysis. Systems conceptually keep individuals and structures intertwined in activity (Engström, 1999), which elicits the diverse forms of tension, which might arise in or between any element(s) in a system, or even between systems. Specifically, evolving coordination in organizations is likely to result in elusive object orientation and unpredictable results (Blackler, Crump, & McDonald, 2000). Indeed, "the components of an activity system and their mutual relations are neither static nor harmonious but are characterized by ambiguity and change" (Boer, Baalen, & Kumar, 2002, p. 9).

More pertinent to this study, though, and only inherent to activity systems, is how divisions of labor are communicated. As mentioned earlier, divisions include horizontal and vertical forms of hierarchy to accomplish work. Divisions exist as social boundaries arising out of power and task structures, and are difficult to grasp without the idea that they are communicatively constituted (Canary & McPhee, 2009). Lave and Wenger (1991), as well as the rest of the CoP literature, fall short of explaining rich, communicative phenomena filtering throughout the process of system connectedness and sharing.

Activity systems produce action through communication. Communication plays many roles in activity, and between each element. Elements (and hence, knowledge) can be shared and subsequently transformed through mediated activity within and between systems (Boer, 2005). Transformations are understood as a system uses communication

to define itself and to navigate boundaries with and from other systems. If these important factors in organizational change were observed strictly from a CoP view, they would be confined within a relatively sparse and general set of criteria.

Communities of practice. This term introduced and popularized by Brown and Duguid (1991) is defined as "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002, p. 5). A CoP features a domain, a community, and a practice (Wenger, 1998), and identifies with a practical skill or labor toward which it shares a common interest. This is the domain. From its inception, a community seeks to build and share knowledge relating to their shared domain.

Community describes the membership of the group that defines it and reproduces structure. Practices are the activities around which communities coordinate their focus, and to which their domains of knowledge are dedicated (Wenger, 1998). Although the CoP literature addresses subject, object, community, and outcome, it is deficient in speaking to considerations of structure, resources, and divisions of labor (which are just as important for understanding communicative coordination during change).

Overall, CoP elements fall short of explaining the full picture. CoP theory lacks conceptual and construct validity. Typically, CoP studies focus too much on community and not enough on practice (Brown & Duguid, 2001). If CoPs were studied more often according to practices, CoPs might be categorized according to communication behaviors, or organizational strengths and weaknesses might be identified (Roberts, 2006). "Explanations of the flow and acquisition of knowledge both within and between firms need, then, to look beyond individuals to the milieu in which they work" (Brown &

Duguid, 2001, p. 201).

CoPs are most often held to generate value for companies and individuals (Lesser & Storck, 2001), particularly because they are usually based on lasting, collaborative bonds that yield interpersonal closeness (Wenger et al., 2002), and because CoPs are both empirically and practically applicable (Agrawal & Joshi, 2011). They are also usually characterized by mutual obligation and trust (Lesser & Storck, 2001). However, CoPs are not always beneficial to organizations (Roberts, 2006), which depend on many factors (e.g., whether the society in which the company is embedded is collectivistic or individualistic).

An advanced take on communities. As labor is distributed across divisions within a large organization, agents must engage with intersecting work and personal identities, and by so doing usually reproduce institutionalized power structures as they negotiate their membership (Boogaard & Roggeband, 2010; Scott & Myers, 2010). The formal culture established (mostly) by those in power may define knowledge, how it should be shared, and even who can share it (De Long & Fahey, 2000). Distinct and varying systems might organically or intentionally emerge from conditions such as these. Communities can arise from formal and informal system interaction as well. Professional identity formation demands that a group differentiates itself from other groups –or establishes symbolic social boundaries (Heracieous, 2004) to define itself in comparison to other teams. Given CoP's capabilities to address group identity and communication (Wenger, 1998), why activity systems?

If value is reckoned by resource allocation, a CoP system only increases resource availability when individuals perceive themselves as strongly interconnected, with a

sense of common understanding (Lesser & Storck, 2001). Divides among and between CoPs are certainly possible, and occur especially when schisms reflect differences between "knowledge" and "skilled" workers (Roberts, 2006). Unseen boundaries formed through activity divide knowledgeable systems from one another (Duguid, 2005). These boundaries prevent communication between groups in a complex manner.

Overall, divisions of practice imply divisions of knowledge (Brown & Duguid, 2001). Fairhurst and Connaughton (2014) call attention to leaders' need to understand the discursive basis of knowledge. Divisions of knowledge arise between managers and subordinates, coworkers, and work teams in knowledge construction and sharing during activity coordination. Activity systems at Facilities Management will be considered in analysis regarding three broad domains: knowledge construction, knowledge sharing, and coordination. In the face of change, efficient knowledge management occurs solely within the confines of systems, as communal activity. Knowledge management inefficiencies occur when one community holds knowledge captive from another (Wenger, 2004). CoP learning is applied to forms of analysis in this project only to the extent to which it conceptually aligns with and can be understood within the language of activity systems.

As CoPs are natural forms of human strategizing and sharing (Wenger et al., 2002), CoP literature rich in collaborative observations are especially relevant to activity coordination –both regarding the manner by which they act in their domain and how they interact with others (Wenger et al., 2002). In short, a community is constantly evolving and growing in a process of identity-construction. It is easy to see from this description how closely related a CoP is to an activity system. Coherent connections serve to

strengthen how communication at Facilities Management can be understood, but these must be negotiated within the limits of activity systems, as CoPs lack certain critical elements to explain a dynamic change process.

Organizational Knowledge, Coordination, and Change

Boer (2005) claims knowledge is "collective understanding plus the ability to transform this understanding into actions" (p. 21). Systems perspective allows for a multidimensional view of knowledge. Another way to conceive of knowledge is along the three structural dimensions (signification, domination, and legitimation) introduced by Giddens (1984). Complex social systems incorporate many resources. Schwandt and Szabia (2013) provide a few examples of knowledge resources. These might include signification resources such as mission, values, and a company handbook. Legitimation resources will also certainly be present, including defined relationships and work procedures.

It is important to distinguish between types of knowledge. First, knowledge is commonsense incorporation of "social practices followed in given settings, used in particular social relationships, and influenced by institutional settings" (Haslett, 2013, p. 617). Knowledge contains interdependent dimensions (Canary, 2010a), such as being "embedded in a community rather than just in one individual" (Boer, 2005, p. 21), being dynamic, and having both tacit and explicit aspects (Wenger, McDermott, & Snyder (2002).

Knowledge can be a source of innovation or constraint, argue Hargadon and Fanelli (2002), depending on whether knowledge is action or possibility. "Every experience implies a potential redefinition of preexisting schemata, whether the actor is

capable of putting such an expedience into words or not" (p. 295). With the immense power of possibility, knowledge can also undo hierarchical, structural domination (McWilliam, Kothari, Kloseck, Ward-Griffin, & Forbes, 2008). Despite such a wide range of conception, Canary and McPhee (2011) believe that we should be primarily dedicated to eliciting systemic connections regarding knowledge dimensions (i.e., tacit vs. explicit). They further stress that knowledge construction and sharing inextricably connected to power and organizational politics (p. 9).

Many practitioners of knowledge seek to develop 'best practices' for knowledge management and dissemination. Cabrera and Cabrera (2005) explicated a key people management practice in designing work that encourages collaboration among employees. Bresnen, Goussevskaia, and Swan (2005), from a construction management study, found that when new knowledge and existing practice align, better project design and management ensue. Choo (1998) advocates for the "knowing organization," similar to the "learning organization," but is primarily committed to utilizing member knowledge and beliefs to incite organizational actions, rather than reserving major decisions for top managers only. However it is considered, the study of knowledge is central to many organizations, especially when intellectual competency is valued (Boer & Berends, 2003). In fact, collaboration and alignment relate quite well with our next section on cooperative, interacting activity systems.

Imperative Coordination in Activity Systems

Some communities are more collaborative than others, an imperative feature of activity coordination. Under a SAT scope, collaboration and activity systems can be seen as reflexive. The idea of units within organizations as communities or niches is not new;

neither is the idea that divisions may transform over space and time (Hannan & Freeman, 1989) through a willingness to share. Sharing/collaborating requires a certain inclination toward relationships (Boer, Berends, & Van Baalen, 2011). When diagnosing whether a system effectively uses its knowledge (De Long & Fahey, 2000), a management or strategic team would want to figure out the "big picture needs and vision" of each division within the department (Roper et al., 2009, p.11). However, first and foremost, an accurate reading of the work environment will only prove efficacious if executed with a robust lens for doing so.

That lens, SAT, recognizes that social orders create "discursive spaces where things can neither change, nor stay the same without the active work of communication in everyday life" (Heller, 2007, p. 652). If a strategic plan is to be effective, it must be accompanied by strong investment on the part of all members, a collective interest, and willingness to grow and share knowledge through collaboration. These activities are not possible without implementers being aware at all times what their activities and practices do to structure differentiation and/or hierarchies among interrelated work groups (Ortlieb & Sieben, 2014).

Inclusivity in coordinated activity systems. Boundaries between communities of practice are not necessarily impermeable, especially among intraorganizational systems. Social space is a ripe concept to describe the possibility of system coexistence. Conceptual communities can overlap through multiple reciprocal relations (Löw, 2008). Inclusion and exclusion connect simultaneously in the same social space via institutional ordering. How individuals position themselves and others along lines of belonging depends in large part on the product of reflexive spatial and temporal activity production

(Löw, 2008). Thus, space can be described both in material geographical terms and also in social terms.

A system's ability to foster an inclusive environment is crucial to successfully implementing processes that encourage systemic knowledge sharing. Organizations are finding that members are reluctant to exchange knowledge with closely connected systems, and that this hesitancy may be caused by the organization's poor approach to knowledge facilitation (Wasko & Faraj, 2000). Sveiby and Simons (2002) observed that collaborative climate directly impacts knowledge construction.

Communicating Organizational Change

Suppressive tendencies, such as hierarchically invoked alliances or being closed to sharing, inhibit natural communal collaboration that arises from belonging to a community (Ropes, 2009). Understanding how a community forms organically means taking an empirical look at how ongoing communication activity constitutes an organization (Kuhn, 2012). Activity systems are an integral feature of organizational change processes, especially when the change concerns formal and informal community membership across divisions.

Although practitioners might view strategy planning (and policy rollout, for that matter) as linear and fixed along a pre-established path, Jarzabkowski (2008) argues that strategy is socially dynamic, and should be treated so by researchers. In a 7-year longitudinal qualitative analysis of top managers across three universities, Jarzabkowski found that strategy takes shape gradually, the success of which depends on several factors, including whether or not the school was strongly or weakly institutionalized. Her finding coincides with Kuhn's (2012), that a manager cannot escape being reflexively

and continuously molded as they put their plans into action.

Kirby and Krone's (2002) study of work-family policy, compared to categorically different research, demonstrates the commensurability of translating policy perspectives to other contexts incorporating a ST perspective. The policy, implemented in a relatively ideal government setting, prescribed procedures regarding flexible hours, leave, and child-care options. The authors observed that employees were hesitant to take work leave, because although the written policy allowed for it, doing so was not normalized. This finding demonstrates the concept of emergent structural contradictions, which arose when employees weighed policy text against managerial proscription. According to Giddens (1979), contradiction is "the opposition or disjuncture of structural principles of social systems, where those principles operate in terms of each other but at the same time contravene one another" (p. 141). Systemic and activity contradictions constitute a force for coordination adaptation within and between systems (Canary, 2010b), and thus will be reported in the findings of this study.

Organizational processes are inherently complex, whether they concern policy or strategy. This is certainly the case when, in any given scenario, as many as hundreds of stakeholders with diverse agendas might debate over various considerations. At times, the inclusion of competing egos, funding, values, and possible coercion culminate to make for "sticky" (Brown & Duguid, 2001) knowledge processes.

Sabatier (2007) argues that a process must be simplified in order to understand it. He goes on to argue against the possibility of accurately analyzing everything there is to see regarding a specific process. This project will incorporate salient concepts from SAT to understand knowledge construction, knowledge sharing, and activity coordination of a

change implementation.

Executing a strategic change effort impacts relationships among group divisions within a large collective. These interdependent relationships are founded and maintained on communicative processes, which are understood through the communicative constitution of organizing (CCO) framework.

> By considering how communicative processes reciprocally affect members, workgroups, and organizations, we can better recognize the complexities of this foundational organizational process of [membership negotiation]. (Scott and Myers, 2010, p. 99)

Groups are important to consider as possessing substantive research value, because they represent a vital site of learning and sharing. In fact, groups (an imperative component of activity systems) often encourage better performance than individually designed work (Bonner & Bolinger, 2013). Canary's (2010a) view of organizations as "collections of intersecting and related activity systems" (p. 45) can be thought of as a plural and complementary form of the definition or organization presented earlier.

Technology's Role as Resource

Largely in response to ST, many scholars have become interested in the relationship between technology and organizations (Cecez-Kecmanovic, 2014; De & Ratan, 2009; Orlikowski & Robey, 1991). Previously, research had treated technology as highly deterministic over organizational structures and agents (Orlikowski, 1992). However, SAT implies that precedence be given to neither human or material, as the focus of analysis concerns how activity is structured and restructured through interaction. This, however, does not imply that technology's influence in social processes should be ignored (Schoeneborn et al., 2014).

Rather, attention to technology's role in and across activity systems involves observing the subtleties of its interaction with organization (Cecez-Kecmanovik, 2014). While human strategy and activity may preclude the introduction, and even adaptation of technology use in the workplace (Orlikowski, 1992), materiality's reflexive and structuring effects on social process outcomes should not be underestimated in analysis. Research should observe the dynamic interplay of social and material in ongoing activity. (Orlikowski, 2009).

Information-communication technologies might in some cases engender forms of digitally centralized, face-to-face communication inept coordination (Bélanger & Allport, 2008), or top-down forms of power distribution (Hussain & Cornelius, 2009). However, they can also facilitate lower-level employee process power (Hussain & Cornelius, 2009) and improve efficiency during change (De & Ratan, 2009). In any case, knowledge management and activity intersections during change are highly complex, political (De & Ratan, 2009) sites. Dynamic analytic tools are required to avoid 'false dichotomies' earlier research has drawn (Orlikowski & Robey, 1991).

"Technologies that are considered to be important for supporting … knowledge sharing comprise knowledge repositories and intelligent search" (Boer et al., 2002, p. 2). Technology creates both possibilities and difficulties for knowledge construction, sharing (Boer et al., 2002), and activity coordination. Information and communication technologies (ICT's) serve as *mediating resources* in ongoing activity, especially across systems as communities negotiate boundaries. In fact, Vygotsky (1978), one of the early contributors to contemporary understanding of activity systems, argued that agents cannot orient from subject to object without some kind of mediation. Paying attention to

technology in the change process at Facilities Management should highlight, perhaps better than any other element, the mediated nature of system interaction and sharing.

Research Questions

An inclusive organization avoids ignorance, cultivates positive attitudes (Von Hippel, 2006), patient perseverance (Roper et al., 2009), and solid training programs (Ortlieb & Sieben, 2014). However, without tracing the communicative constitution of any effort, little can be said of the constellation of activities and interpersonal processes inherent to change in organizational life. My research questions are directed toward understanding the complexities of communication during strategic implementation, including knowledge construction, knowledge sharing, and activity coordination (giving special attention to how technology contributes as a resource). I pose this set of research questions:

> **Research Question 1a:** How is activity coordination communicatively enabled and constrained within activity systems during an organizational change process?
>
> **Research Question 1b:** How is activity coordination communicatively enabled and constrained between activity systems during an organizational change process?
>
> **Research Question 2a:** How is knowledge communicatively constructed within activity systems during an organizational change process?
>
> **Research Question 2b:** How is knowledge communicatively constructed between activity systems during an organizational change process?
>
> **Research Question 3a:** How is knowledge sharing enabled and constrained within activity systems during an organizational change process?
>
> **Research Question 3b:** How is knowledge sharing enabled and constrained between activity systems during an organizational change process?

CHAPTER 2

METHOD

Organizational Orientation

This project incorporated 27 employees of the University of Utah Facilities Management department. Participant demographics featured a fairly diverse set of people, with ages ranging from 18 years to over 60 years old. Participants were both male and female, and they fill many positions within the organization. As this is a Utahn trades organization, the vast majority of participants were male caucasians –reflecting the broader racial ethnic makeup in this geographical area. The organization is a nonprofit, state-run organization that does not discriminate based on age, gender, ethnicity, nationality, language, education, and other forms of demographic diversity. Hence, its employees do include a marginal number of members from several nationalities and languages. However, the espoused value of diversity in hiring does not necessarily lead to a diverse workforce.

As illustrated in Figure 2.1, participants represented every major area within Facilities Management (FM), including management, business services, campus planning, construction project delivery, facilities operations, campus support services, campus utility services, workplace services, and central services. The management activity system is not included in the figure because they are embedded in every area across the organization. The numbers included within boxes indicate the number of

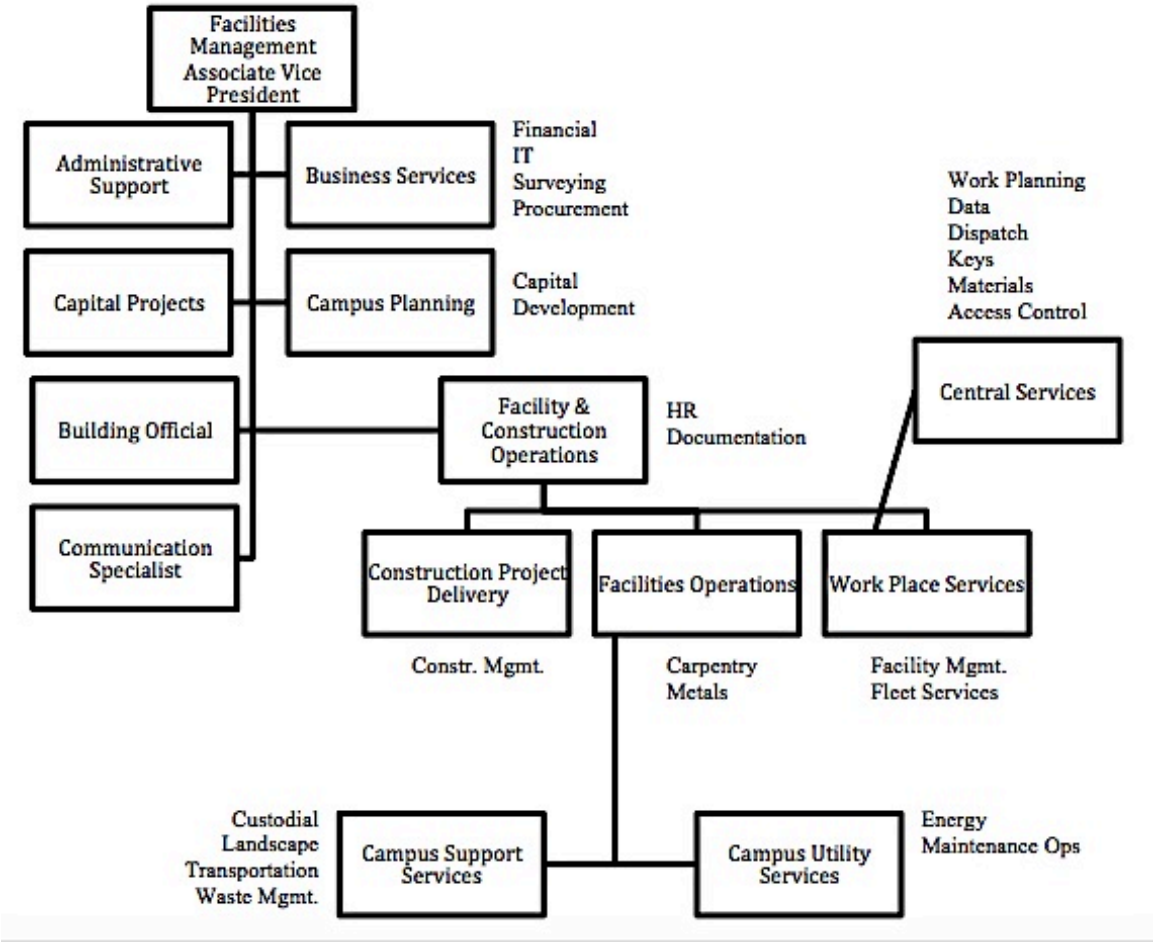

Figure 2.1. Organizational Chart

members of the management team working in those areas. To protect the anonimity of participants, systems are referred to using these broader categories rather than *carpentry* or *plumbing*.

Front-line responsibilities range from electrical to carpentry and custodial to landscape work. The management office is nearly as diverse in their expertise and scope as the skilled labor positions. In short, the Facilities Management (FM) department is involved in every aspect of campus functionality. One can consider the constellation of roles FM plays through the life-cycle of a building. Employees in the Construction and

Project Design system are involved in proposals, funding, design, and contracting. Engineers, electricians, carpenters, metal workers, landscape, and others are involved in constructing the building. Custodial, landscape, generalists, dispatch, and others contribute to maintaining a building. Management oversees the entire process.

The department prides itself on being part of the university. It is housed on campus, where employees regularly interact with and serve students, faculty, and staff. Employees and contracts are recruited from various industries and locations across the state of Utah. Roper, Kim, and Lee (2009) argue that "facility planning focuses on tactical day-to-day issues" and "problems related to specifics" (p. 9). Furthermore, they add that a strategic facilities plan must be developed holistically, in that every system should contribute. In this particular department, the strategic plan concerns improving workers' willingness and ability to be precise and innovative in how they accomplish projects together. In this way, customers and the community will be better satisfied.

The department is also interested in how to reduce waste and improve efficiency related to their budget. More specifically, the director has asserted that the campus community should prefer this department over any other option (i.e., subcontracting). Employees are also trained so that facilities work becomes so efficient and timely that tasks and repairs are completed before any customer or manager notices them. Workers are concerned that all assets and equipment are updated and serviced. Breakdowns persist in many social and technical aspects.

One technical site of strain is the work order software "AiM," which is utilized by virtually the entire organization. This program is used for assigning, phasing (processing), and accomplishing work tasks and projects, as well as for time clocking.

Preliminary information indicated that AiM is an integral part of each workday. I was curious how this technology might impact participant answers to my research questions, so I made sure to inquire regarding this system during interviews. This effort is documented in Appendix A.

Researcher Positionality

I was precariously positioned as a researcher in this context, as I was an employee of the organization while collecting and analyzing data. When I approached management to gain admittance to employees, they asked if I would fill an additional role in conjunction to my master's work. After providing a general explanation of the strategic change plan, which incorporates a set of goals, formal reorganization, training, and *Lean* manufacturing principles consulting, the executive director proposed that I be brought on part-time to supplement their effort to improve communicative collaboration within the organization. I openly recognize my strained influence, which was to be an observer and reporter of the naturally unfolding territorial work team conditions while directly striving to alleviate the same by skills and content training.

Strategic training on my part almost exclusively entailed conducting two workshop series for full-time workers, one of which comprised three rounds. The series addressed the organization's vision, values, and leadership capacities to encourage critical reflection and discussion from employees. Among other adjacent goals, main objectives included participants' understanding and practicing collaboration while also providing suggestions for departmental improvement. I relayed this feedback in anonymous, de-identified form to management so that it might be considered for the next year's strategic implementations. The following observational interpretations, with

research journal entries included, reflect my positioning progression as a new consultant, research, and member of the organization.

Observational interpretations. My own field-based reflections are included in conjunction with the thematic results articulated in this section. The entries gave me insight throughout the analysis and interpretation process. I have selected and included several relevant examples that should provide personalized support for what can be detected within each theme. I accept full responsibility for the views expressed herein, and emphasize that they should be treated as my personal experience and takeaways rather than as definitive perceptions of any group or individuals in this Facilities Management organization.

6/11/2014. A person from the university administration met with me to offer advice as I entered FM as a communication graduate intern. As I expressed my desire to empower the workers, this individual strongly asserted that I cannot empower people. I cannot make people do things –that the work environment needs to be self-sustaining.

6/16/2014. In preliminary meetings and introductions, I was introduced to employees and directors with a plethora of titles and descriptions. I was marketed as one capable of solving their collaborative and cultural woes. Expectations and direction were ambiguous, vague, and conflicting from the outset. As such, I felt tension between recognition of the possibilities and opportunities versus the debilitating nature of potential botched approaches. Hence, introducing myself to members of the organization involved a mix of wariness and excitement, as I simultaneously felt slightly ineffective and interested to learn.

In a meeting that a few of us thought would be a brainstorming/planning session,

the leaders outlined their expectations of me and oriented me to my responsibilities as the collaboration intern. They conveyed many expectations, which were two- and three-fold. They expect me to conduct research while simultaneously enacting a strategic action plan. Their directions were ambiguous in nature, and included what they called some gray areas of responsibility. They want me to be both consultant and facilitator. I was slightly overwhelmed at the enormity of tasks required of me, and encouraged at the prospect of strategically using his ambiguity to my advantage.

6/17/2014. I have struggled over the last few weeks to determine how I fit within this organization. I understand that I am here to help improve collaboration, but I have received mixed messages in terms of how I'm supposed to go about doing that and exactly how I'll be evaluated. I have been called many different titles, including the 'Fix-it Guy', 'Communications Expert', 'Collaboration Specialist', and 'Warm-Fuzzy Person'. I settled into the title of 'Collaboration Consultant' because I figured it was a little more neutral and ambiguous enough that I can serve in different capacities where needed. I had to navigate an uncertain process to settle into this distinction, as I was never assigned a specific position designation. I don't even have a direct boss to report to.

7/22/2014. The longer I'm here, the less surprised I am that many members of this organization struggle to construct a personal identity and job description. I sense equivocality in terms of the sparse direction from the leadership. I have been given very little clarity and resources to accomplish the expectations upon me.

I still struggle discussing my role and value with other members of the organization. I feel anxiety each time I am addressed in terms of my responsibilities, as many visitors to the dispatch office jest with the dispatchers, and spare no effort to offer a

sarcastic remark pertaining to my "fixing" them, or "healing" their organizational ills. I am still surprised, however, how many of these anonymous employees know my name. I wonder to myself, 'How do they know me?' I speculate that we may have met in passing, or a supervisor, newsletter, or management meeting has informed them of my presence and purpose.

10/21/2014. Last week during workshops, I asked what participants' expectations are of me, they responded with hopes that I will act as an advocate for them –represent their interests, hold their feedback in anonymity, and safely navigate social space as a liaison. They assume I will be forthright, accurate, and direct in how I report their concerns.

I notice an attitudinal change among employees who seemed to previously despise me (or more accurately the work I'm assigned to do) as they go through the workshop series. Many are doubtful of my impact upon management, but lingering hope prevails that by "some miracle" I might just get through to them.

11/3/2014. Today, two days short of the workshop feedback reflection meeting with management, I was informed that the VP of facilities management and a leadership team constructed a new set of vision and values to be introduced to the organization. This set is quite different from the set I have been training with in workshops for the past two months. I fear that this new set will be met with intense resentment from the organization, as it highlights one-way, top-down decision-making employees have bemoaned for months. The VP might not be aware of the implications for rolling out an inconsistent set of principles for workers. I feel obligated to inform him or his team of how this implementation is likely to be perceived by lower-level supervisors and front-line

employees.

Upon hearing this news from the administrator, my initial reaction was disappointment, personal alienation, and concern for employee-manager relationships. I was disappointed, because this effort is highly contradictory to what has been pushed as a unified managerial workshop series. Given feedback I received in those sessions, this instance could prove to exacerbate already fragile tensions. I have become a neutral facilitator turned advocate. I certainly do not desire to choose sides, but my instinct to bias lower levels of the organization might be a good indicator of the intense effect of territorialism pervading across divisions and relations within this organization. Whatever buy-in we experienced as a result of fostering a safe, open atmosphere in workshops is threatened by persistent hegemonic change orientations.

Shared feedback form. As observational interpretations and journal entries suggest, I was not only frustrated and uncertain as I navigated relationships and responsibilities at FM, I experienced personal and impactful personal contradictions. I was charged with fostering a collaborative environment through extensive workshop trainings and workplace assessments, however I was constrained by my own ethical conundrums in terms of which approaches were appropriate means. I was also confused as to whom I am most accountable – the workers or management. Once I presented synthesized feedback from dozens of meetings with employees, I was identifying as an advocate and voice for them. I was fully invested in the progress of healthy change. This only increased my dissonance in each appointment with leaders. The entire FM shared feedback form is included in its entirety as Appendix C, with one portion included in Figure 2.2 to demonstrate relational strains across the organization. Personal tension and

contradiction continued upon presenting this form, as evidenced by another reflective entry:

11/5/2014. This morning, I presented synthesized feedback to upper management. I felt burdened by my perceived obligations for this meeting, as I wanted to be sure I presented an accurate and full report of worker feedback. The meeting was long, and much had to be clarified and purposed toward a direction ahead. Overall, I think I did my duty bringing the employees' voice to management, and invested myself to an exceptional extent. The leaders believe that this information is not news, but will hopefully facilitate commitment from the directors and supervisors toward following up and being transparent and authentic with the organization about what they will do, or how

Information Issues

- Communication deficiencies prevent us from achieving our vision
- A subculture of fear/blame exists across the organization
    - Remarks like "workers are replaceable", "there's the door", "we don't have enough turnover here", and "a line waiting for your job" have left a lasting impression
    - Morale is low
    - We feel like numbers, disposable, and undervalued. "Front-liners are an afterthought"
- AiM Challenges
    - Work order access is too limited and creates barriers to collaboration
    - Not utilized properly by certain employees
    - The process facilitates the design of the system, not vice versa
- We do not feel safe approaching any level of management
    - Our questions and concerns are either not heard or considered strikes against us, largely because many expectations are not clearly defined.
    - Groups recognize constraints and efforts of management, but doubt their willingness to follow through on long-term intraorganizational communication and collaboration. Little faith that there is enough organizational will to change.
- Inspectors accentuate the negative and skimp on the positive
- We do not inform our customers well enough in terms of project management and completion

Figure 2.2. Feedback Form

they will respond to calls for improvements and change.

I can only speculate over each individual's intentions for providing feedback, or giving me the opportunity to train and discuss issues with employees. However, I hope everyone who has a role at FM and takes part in this change overhaul will, for the sake of healthy relationships and progress, honestly answer what role and value I brought to the organization through my efforts. Did I serve as someone who communicated management's intentions to empathize with and adapt to workers? Or was I a physical barrier to empathy, a distancing mechanism who facilitated someone's relational apprehension? Did I bring groups and individuals together in work planning, or further ostracize them? If so, who's fault is that?

2/3/2015. Management is primarily concerned with empowering the front-lines and getting supervisors to buy in to the direction upper management wants to go. They are concerned about getting workers to buy in to the vision and be collective in their approach to working each day. A coworker today used a metaphor to describe "people being hired from the neck down" here.

March 2015. I didn't think that management gave enough attention to the feedback write-up I gave them, which expressed employee concerns and ideas for improvement. They believed they were already aware of the problems stated on the form. This seemed ironic to me, as many points identified management as one-sided and unwilling to listen to or collaborate with others. They appeared to demonstrate the feedback before my eyes.

I was frustrated by management's multiple and seemingly conflicting expectations of me. I was supposed to get people relating and talking in innovative ways

as well as provide information across the ranks, yet the directors were very clear that they wanted employees to conform to a particular style of work. I sensed only fleeting humility from a few top managers in regard to how they view their employees. Similarly, employees seemed hardened and apathetic toward their leaders. I noticed a great deal more exclusivity in general than inclusivity. This organization has relational problems which individuals perpetuate by conveying negativity in formal and informal settings. Many complaints arose regarding standards for work processes. While I believe those concerns are valid and important, I believe fundamental flaws in relational standards are impeding organizational progress.

Indictments reign over inconsistent leaders and shops, but there was very little reflection offered pertaining to personal consistency. Participants in workshops and interviews appear to be self-inflated and other-deflated. Many seem to be willing to accept change among front-liners, shops, or management, but few were focused on changing themselves.

As I interacted with various workers over 10 months I noticed how quick people were to complain about others and exhibit harsh reactions to managerial directives. However, I sensed optimism from many in regard to collaboration efforts, as well as other change initiatives such as *Lean* launches. I can't help but think that the "what" of change initiatives is not the problem. Adept ideas are being implemented. Rather, I'm prone to believe it's the "how" that all shops should be primarily concerned with. The overarching communicative strategy that from my perspective would benefit this organization most is improved *self-monitoring* –especially in meetings, presentations, and emails.

This skill can and should extend to informal interactions as well –crossing paths on public transit, meeting at a drinking fountain, or passing through a shop. Success in this regard means giving greater efforts to take the role of the other –unceasingly considering how one's words and gestures toward others might impact them and one's relationship with that person. When I consider what this organization should be aware of, I'm reminded of this famous quote from Michel Foucault: "People know what they do; frequently they know why they do what they do; but what they don't know is what what they do does" (*Madness and Civilization).* We would all benefit from a little more searching for what our communication does to others and to our process' success.

Research Approach

The University of Utah Institutional Review Board has approved this study as *Exempt*. I invited dozens of workers across the organization via email, hoping to have a widely distributed representation. I collected data from 27 members, with at least one from every general area within FM. Upon receiving consent from each individual, I scheduled a specific time to interview them in a face-to-face setting at their offices or places of work. A consent letter and demographic questionnaire were given to each participant. The letter stated that their privacy would be maintained and that their comments would only be included in the present project as de-identified data. They were also informed that they have access to the article to which they are contributors upon its completion. I kept the file of consent forms private and protected in my locked office. Their aggregated personal information is included.

Participant Demographics

All but 1 of the participants willingly shared their demographic information. For numerical values, only averages are reported. Management system was represented by 5 individuals. Business Services systems were represented by 1 individual. Campus Planning systems were represented by 1 individual. Construction Project Delivery systems were represented by 1 individual. Facilities Operations systems were represented by 4 individuals. Campus Support systems were represented by 7 individuals, which is probably appropriate as this general system area comprises the critical mass of employees at FM. Campus Utility Services systems were accounted for by 4 individuals. Central Services systems were represented by 3 individuals. Lastly, Workplace Services systems were accounted for by 1 individual from the data set.

Six participants were female, and the other 20 were male, with 1 participant declining to disclose their biological sex. Ten particants have been employed with the organization for 1-5 years, 5 participants have been employed with FM for 6-10 years, 1 individual has been with the organization for 11-15 years, 3 participants have been employed there for 16-25 years, 5 individuals have been employed with FM for 26-35 years, and 2 have been employed for 36 or more years, with 1 participant declining to disclose their tenure at FM. One person from the data set is ages 18-30, 7 are ages 31-40, 4 are ages 41-50, 11 are from ages 51-60, 3 are ages 61 or over, and 1 participant declined to disclose their age. In terms of ethnicity or race, 25 of the participants identified as Caucasian/Non-Hispanic, 1 identified as Hispanic, and 1 chose not to disclose their ethnicity. In terms of formal education, 6 participants hold a high school diploma, 6 have attended some college, 6 earned an associate's degree, 6 earned a

bachelor's degree, 7 earned a master's degree, and 1 earned a degree beyond master's level, with 1 choosing not to disclose.

Data Collection

Despite my precarious positionality, I sought to remain as neutral as possible by approaching data collection using a standard set of interview questions. I audio-recorded each interview, which were transcribed and coded for analysis. Interviews lasted approximately an average of 45 minutes per participant, totalling around 20 hours of audio. As the collaboration consultant, I kept a research journal of my experiences and thoughts as I coordinated with other members of the organization. I also recorded various workshop sessions, during which I trained workers and solicited feedback pertaining to their experienced challenges, concerns, and suggestions for improvement.

Transcripts were analyzed using the constant-comparative qualitative method. Field notes drawn from a research journal served as a rudimentary ethnographic account, which was drawn on here and further tapped in the Results chapter. I also interpreted the data by reflecting on audio recordings and notes taken from workshops, totalling 58 over two phases. All in all, I spent 1 year in the organization, 10 months of which were spent preparing, executing, gathering data from, and reporting on workshops. I spent on average 3 days per week, totalling approximately 12 hours per week. I collected interview data over 7 of the 12 months I was employeed.

Data Analysis

Transcriptions were uploaded to Nvivo 10.0 qualitative data analysis software. Names were changed to pseudonyms when each participant's entry was created which

were meant to protect the identities of the participants. I used the constant-comparative method (Tracy, 2013), visiting and revisiting data points as themes emerged, which were categorized and recategorized according to a theoretical framework derived from SAT concepts. I took an iterative approach (Tracy, 2013), meaning that I spent long hours deeply entrenched in the data, comparing items to themes, and one thematic area to another, checking for consistencies, inconsistencies, and theoretical relevance. After coding the first interview, theoretical codes were constructed in order to navigate better and categorize participant feedback. Initial coding yielded 125 items that were then grouped into eight parent codes that spoke to enablement and constraint within and between systems, as well as several parent codes for responses that did not directly address within- and between-system coordination. I allowed my higher level codes to be informed by my research questions, particularly distinguishing between activity coordination, knowledge construction, and knowledge sharing.

What began with open coding evolved into over 700 initial data points with only one higher level of conceptual categories. Early on, I focused on individual phrases as I attempted to generate process- and meaning-oriented codes at lower levels. I did so by first assigning each phrase to a general title, which resulted in over 1500 data points after an initial pass through each transcription. Once I sufficiently specified my focus, which occurred when I had combed every interview, I introduced SAT to identify communicative processes of enablement and constraint, merging and constructing nodes as I fleshed through the entire coding scheme four or more times.

I arrived at this point after a month of coding the data. When I arrived at this overwhelming amount of codes, I noted that categories not directly related to within- and

between-system coordination were highly relevant to elements in the activity systems, so I coded them together as *Coordinating Elements.* Soon after, I noticed that every comment related to knowledge spoke to specific kinds of coordination, and they also pertained directly to knowledge construction rather than knowledge sharing. I made theoretical sense of this synthesis in Discussion and Conclusions.

I thereafter decreased the number of codes to a final 196 by merging, dissolving and recoding, and dividing previously overly general codes. I went from broad theoretical grouping to specific activity-oriented analysis. I was able to move from general to specific, and multiple levels of coding hierarchy by identifying communicative processes the participants and other members of the organization undergo. After 2 months of coding, I also distinguished what I considered an activity system at FM. Using shops like carpentry and electric as categorizations did not allow the richness of the data to inform themes, and neither did an orientation to organizational hierarchy. I was able to develop function-based themes only after removing that strict structure from the coding framework. My Discussion points are informed by memos and annotations made during the coding process that related to contradictions and various types of communication utilized by members of the organization. Ultimately, conclusions were made by way of synthesizing categories, themes, notes, and memos.

CHAPTER 3

RESULTS

Results are reported using a framework informed by SAT concepts. Data were approached by inquiring how communication bears on knowledge construction and activity coordination within and between systems. Knowledge sharing was included among the set of research questions.

Accordingly, when I initially introduced the theoretical framework to the coding process, I distinguished knowledge sharing between and within systems from other conceptual areas. As I continued a very close reading of responses, combining references in categories as I went, I noticed that knowledge-oriented articulations relied heavily on construction in general. I then adapted my approach by integrating knowledge construction and sharing. In other words, data indicated that for these participants, knowledge sharing is contained within knowledge construction processes, which in turn mutually impacts overall activity coordination. See Figure 3.1 for a visual representation of how these three processes related to each other.

Members of the Facilities Management (FM) organization coordinate in terms of knowledge construction and sharing, among other activities. Both past-tense and present-tense experiences are continuously constructed. Sharing is part and parcel with construction processes as exchanges are both facilitated by existing constructions and

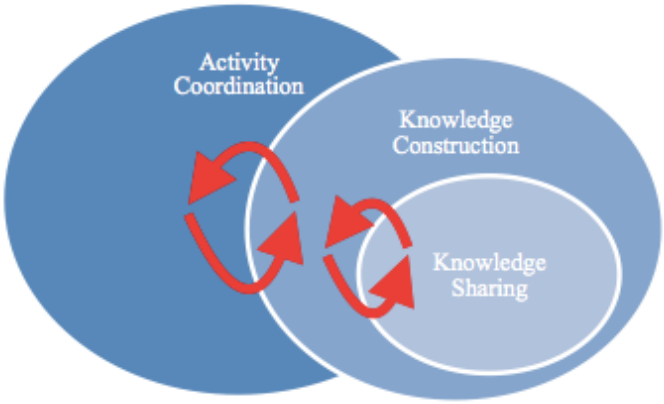

Figure 3.1. Related coordination processes

facilitate new ones. Coordination is considered as encompassing a wide range of communicative behaviors among members. Coordination not categorized as knowledge construction dealt with labor and organization (e.g., job completion, resource utilization, and meetings).

I approached coding the data with all six research questions concerning activity coordination, knowledge construction, and knowledge sharing in mind. However, data indicated those three processes are not entirely distinct but more interrelated than I originally assumed. Initially, data were coded within five broad theoretically based categories, which embody the coordination/construction integration and provided framework for structuring codes. Results are presented, however, in order of relevance to each successive research question, with sharing reported in conjunction with construction.

The five overarching themes included Coordinating Elements (751), Within-System Coordination in General (153), Between-System Coordination in General (252), Within-System Coordination –Management (76), and Between-System Coordination – Management (384). The management system was parsed from others in general due to

the volume of comments concerning that particular system's activity and knowledge. Reference frequencies are reported in parentheses for each level of coding, with theme and subtheme frequencies reported as well. Appendix B presents a table of the codes, theoretical categories, and overarching themes, including numbers of references for each code.

Activity Coordination

Themes within activity coordination differ from knowledge-related data analytically in addressing how mediating resources and rules influence action in terms of agency.

Within-System Coordination in General

This category illustrates different forms of coordination within systems as participants understood their own particular system's activity and orientation. Community members construct knowledge of themselves, their coworkers, and the team as a whole by navigating potentially contradictory tensions. They do so through observation as well as engagement in various activities their system might undergo. This theme explains how coordination is supported or not in answer to RQ1a: How is activity coordination communicatively enabled and constrained within activity systems during an organizational change process?

Inclusivity. This theme emerged as participants referenced system-level coordination that aims at benefitting the entire system toward accomplishing shared goals. Workers use shared mediating elements and utilize key community members to approach their work with a collective mindset. They do so by advising one another. When

members act on behalf of systemic concerns and goals, they proactively and willingly share information with others who may not be aware of circumstances or the implications of certain tasks. Respecting others' expertise and contributions is also a prevalent value, and related practices accompany this high regard for system members.

Exclusivity. This type of system-level coordination is demonstrated as ostracizing others or seeking to remove one's self from the group in subtle or direct ways. Isolating tendencies are enacted, which separate one's self from other members of the community. These tendencies serve to promote self-interest and disregard others' needs. Workers are doing so by restricting others from key information or participation, which presents roadblocks and causes group initiative to wane.

Flexibility. This type of coordination occurs within systems when workers recognize the need to adapt or adjust their own activity in ways that are ambivalent to inclusivity and exclusivity. "It's pretty easy to get stuck in a rut and not do your work, not work with your people (Isabelle)." This comment suggests that workers must adapt to the demands that accompany trades work on a large and oftentimes overwhelming university campus.

Within-System Coordination –Management

This category illustrates various forms of coordination among management by participants who either consider themselves to be part of management, or who are deemed to belong to management by being or associating with director-level administrators.

Exclusivity. Whether intentional or not, upper-level managers use means to hinder communication and other forms of coordination between themselves and lower-

level managers. This disconnect is demonstrated by attempts to stagnate idea flow coming up from lower levels in the organization and hasty top-down decisions. “I mean I’ve had it several times, that voice from people above me. Oh, it’s when I would bring something to their attention that we’re going to get phone calls or this isn’t standard, oh it’s not your worry it’s somebody else’s worry (Diane).” Apparently, lower managers are constrained from forwarding authentic improvement suggestions, as well as from collaborating with other leaders.

Inclusivity. This theme included references to activity that fostered unification among management. This theme was supported in this category much less than exclusivity. However, participants did mention that a certain degree of respect and support exists among the ranks, which generates a feeling of relative togetherness and buy-in for certain stakeholders.

Between-System Coordination in General

This category represents all references related to coordination that occurs across system boundaries in the Facilities Management organization. This is to be distinguished from between-system coordination related to management, as comments qualifying for this category were considered not to be addressing leadership in any way. Comments of this nature answer RQ1b: How is activity coordination communicatively enabled and constrained between activity systems during an organizational change process?

Inclusivity. Cross-system coordination aimed at benefitting more than just one system. Workers network with other systems by fostering relationships, asking a favor, or to accomplish a shared task. Participants feel that adept communication characterize relationships across system boundaries. Members from various communities share

resources and utilize strategies for successful interaction with others.

> Um, I think that a lot of crew leaders are contacting people out in individual shops. I think that's happening probably more than we know. But I think that's part of what's that's a useful part of the communication is having that individual and personal relationship as long as it's something offered to all. But it's just so and so oh Randy he's nice to me so he'll come up and help me (Brandi).

Exclusivity. This is cross-system coordination that does not benefit extra-system goals. Workers are inclined to avoid others, especially when confronting or coordinating with other systems is not in one's own or system interests. Cliquing occurs, which establishes clear social boundaries, facilitating conflict with those outside. Some lament that they simply lack the time needed to form important relationships with other experts, but many blame poor interaction on previous mishaps: "And so I think sometimes people on the [other] side try to avoid interaction with maintenance just because they've had so many unpleasant experiences (Oliver)."

Between-System Coordination –Management

This area is dedicated to those responses that addressed how management interacts with those outside their immediate community, in essence their relations with systems in the organization considered any type beside management. The following participant comment illustrates that this theme is dominated by tension and conflict: "He did an excellent job and yet a supervisor who does not support us ripped his employee for going up and beyond what his normal routine would be and you know, it just hit me wrong (Frank)."

Exclusivity. Management was tagged most as being highly exclusive in terms of

cross-sectional coordination. Many different strategies were highlighted, which together create a full spectrum of activities ulterior to supposed or pretended engagement with different sectors. Control was most prominent among them, which included efforts to dictate jobs and tasks. Participants believe management to often belittle those who are not members of their system. They also protect personal interests in an effort to maintain power. "Where with upper management it's more like they're doing the switch and be on board, here we go. There's really no discussion with us when it happens (Carlton)." They have also been observed by employees avoiding important relational opportunities, showing apathy toward others, concealing important information, and failing to share accountability to group outcomes.

Misalignment occurs as management balks on participatory decision-making processes, effective work ordering, and reporting. A few current conditions are not meeting expectations, especially regarding how employees are able to utilize the organization's information management and distribution technology, called AiM. This system suppresses worker agency, as they are not able to tap certain capabilities and features that are not added to shop work order processes. Lack of communication and implementation at the administrative level contribute to the milieu of challenges arising out of lack of follow-through and purposeful updating. "And so you just get people, all they do is bash the system therefore you can't really get anything accomplished because it just doesn't work. But nobody's come back to say what we want it to do to get what you want out of it. So yeah it's doing the bare minimal to get by (Veronica)."

Managers are also viewed as undervaluing employees in a manner which de-legitimizes their unique contribution and personhood, as well as their knowledge and

capabilities in their particular assignments. Participants believe management deliberately prevents others from achieving through opportunity scarcity, which prevails over those who are not in advanced positions. Many perceive they are subjected to a career advancement, innovation, and/or efficiency stalemate.

Inclusivity. This section received the least attention for this category, demonstrating a preoccupation with and possibly increased presence of exclusionary activity between management and front-line workers. However, marginally compensatory activities include problem-solving strategies management practices to alleviate organization-wide issues. “I think that’s probably why they allowed you to do this. Let’s face it, they put a lot of money and manpower into your seminars, because they want to fix it” (Adam). Managers do empathize with others in a manner that builds a sense of team or family. In many ways, AiM –primarily a management tool to track productivity- enables workers to focus on and achieve labor efficiency. Managers also involve others and provide needed resources in certain contexts.

Coordinating Elements

Participants made comments regarding system elements that mediate activity during coordination and knowledge construction. Codes in this broad category relate to how structures of meaning, authority, and legitimation facilitate and are reshaped by activity and knowledge construction. Specifically, codes of this kind provide reflexive insight regarding how extra-system elements such as institutional structures guide ongoing activity and how mediating elements such as objects structurate future coordination. Comments relied on coordination in the past, present circumstances, and future orientation to explain how activity in the organization is mediated by various

forces. Given the wide range of tenses and dynamics within this area, *Coordinating Elements* seemed an appropriate label, as it is consistent with all codes within subject, object, outcomes, and social structure (general grouping categories) and accompanying structures.

Subject. Reflections of subject-level considerations ranged anywhere from work-related intrapersonal processes to robust philosophies of labor. Subject-level commentary aligns with insights shared regarding system and organizational levels. Participants had a plethora of opinions and projections to forward pertaining to nearly every aspect of formal structure. Subject concerns add richness and explanatory power to system collaboration when linked to comments concerning within and between system coordination.

Inclusivity. Input grouped within this theme demonstrated the interviewee's efforts to aid in the effort of the organization rather than a self-absorbed approach. Individuals contribute to the mission of Facilities by taking personal initiative on the job. They seek to learn new knowledge about their trade. They respect others, including coworkers, management, and customers. Workers also contribute to the whole by showing resilience in spite of opposition.

Exclusivity. These are admitted strategies the interviewee uses to serve self-interest rather than a commitment to a communal or collective mindset. Strategies included distancing oneself –either social or physical– from others and convenience. Convenience implies workers' tendencies to alleviate the stress or demands of the organization:

I'm going to tell them exactly what they want to hear until the day I leave,

> because I've got a family I've got stuff so I just keep on keeping on. And what I do is essentially I think I'm an optimist, I'm going to make the best of it. I find someway to buy myself off so I can just finish out my time." (Adam)

Social structure. Participants perceive that they are constrained and enabled by various types of structure, both immediate and indirect. They cited institutional policies, departmental culture, and societal norms among other diverse rules and resources as structuring their time and responsibilities. They referred to past, present, and future tense in terms of comparing their organization to others, or to their own collective potential.

Facilities and construction operations. At the organizational level of focus, present and future tenses were drawn on to describe what the work environment is like and how participants believe it needs to improve. Futuristic concerns received the most references, which were presented as potential structure. Suggestions for advancing the organization's function and mission included a call for more direct communication channels between managements and shops and better training opportunities (including new modules or programs) for newcomers and seasoned employees. Participants want to see increased capacities on the front line by hiring more skilled workers and more managerial investment in employee and daily task needs. Participants hope relational tension can be alleviated by improving perceived respect from managers toward workers. Additional propositions included process assessments, increased worker proactivity, a united workforce, and more resources. These are viewed as holistic new approaches, rather than just benefitting one segment of the organization.

In terms of enculturation, rich labels were identified to describe the current culture. Participants experience the organizational culture in the following ways: as a

hierarchy, both a positive environment and negative environment, kingdoms, and emphasizing money's importance. "Are they willing to get together? I think in Lean they call it silos, people create their own kingdoms, and you don't belong in my kingdom stay out that sort of thing" (Lane). Current structures include scarcities of opportunities or resources and acknowledgement that work is highly demanding. Boundaries between systems are protected and contested, and quite rigid to an extent.

Institutional. Devaluing employees is a campus-wide problem, and is not confined solely to FM. This norm structures devaluation at lower levels from supervisors to front-liners. At the institutional level, rules change in diverse ways. For instance, entitlement rather than policy fuels demands from stakeholders across campus when calling Facilities to complete projects. Big picture concerns haunt visionaries in higher administration, who react by empowering upper-management, who instigate reactions to big picture change needs. Competition is fostered by management by increasing numbers of outside vendors and contractors for university building and maintenance. At times, strong buy-in and alignment to the university's mission can be noted across disciplines and staff:

> I've worked with a lot of guys, in particular when I was doing welding that were just like there's just no way we can do this, this is impossible, why are they putting this kind of pressure on us, why are they asking us to do this? And I think that the work load here is greater than what we were going through there, but I don't see that same sort of oh gosh why me same kind of thing. Which is good. (Tyrone)

Societal. This most abstract level relates to observations of coordination that take

place outside the university campus in industry and the public sphere. Many compared public employment to private industry:

> I think everything takes longer than it should. And this is kinda a digression on my part but I think it's part of kinda government-type work, not you know, we're not chasing a profit. You go into a company...if we were trying to make a profit, three fourths of the things we're doing we wouldn't be doing. We do a lot of stuff here because we're a public institution -a bureaucracy. So a lot of tasks, a lot of work load gets added. And because we're a bureaucracy too, I think we're under paid, under staffed. (Jack)

Many concluded that the grass is not greener in other companies or schools for their chosen vocation. They realize that their organization, and government employment in general, is not unique in that immense and increasing pressure is put on workers across industries in society.

Object. Members across systems and positions had much to offer in the area of objects, which facilitate action by orienting systems toward agreed-upon goals and motivations. Objects catalyze activity generation in this organization. No shortage of ambition for the future can be surmised as interviewees grappled with prospects of change/stability and cooperation to reduce unproductive insulated independence. Wide-ranging variations of goals and motivations were presented. Objects of some at Facilities are in tension with others, particularly when management system is compared to others. Never was an argument made against the potential benefit of collaboration between and within systems, although other forms of goals were focused on much more. Collaboration is a preoccupation within other contexts (i.e., between-system coordination) as something

that is either done or not done, while within *Coordinating Elements* it is viewed by most members as an accompanying condition to greater relational or systemic improvements.

Change. Most members strive toward change-oriented goals that increase productivity and/or unite the employee base in personal achievement. However, many comments concerned how change efforts have resulted in mass misalignment. This may be due to the emphasis put on entrepreneurial and *Lean* manufacturing (efficiency) approaches compared to what many view as a maintenance mission. Explaining why they believe the organization is adopting an entrepreneurial approach, Diane reasoned that it's "for somebody to say I don't know if it's a power thing. Maybe this is what I've done, this is what I've created. So whether he this person if they stay here or they move on, it's like you know what, I've changed the whole facilities."

Stability. A push for conservative consistency characterizes polar opposition to change paradigms. In contrast to hopes for a waste-free, business-savvy company, many participants found that staying committed to values, maintaining campus, offering quality customer service, aligning processes and people, and becoming more collaborative are fundamental for defining success at facilities:

> Well my purpose here if I look at it the way other people in other shops look at it as, I think facility operations, our goal is to manage these buildings and keep everything running so we can run the best facilities to have the best university that we can. That's the attitude that I have and that's what we're supposed to accomplish. (Dallin)

Outcomes. Desired effects were proposed and/or recalled concerning how the organization is to progress through time and space. According to participants, expected or

experienced results are supposed to impact relationships and functions, as well as culture. Unification was proposed as an ideal anticipated outcome to increasing collaboration across systems:

> The relationships you build, and that sense of camaraderie or I don't know I think that would be a powerful thing. Cuz other people would get to know the supervisor and he would get to know his workers and they'd get to see the human face… But that seems like a good way to reduce that alienation between. (Aaron)

However, many participants noted many instances of decreased effectiveness between groups. Change is apparently viewed not only as an object and a process, but an everyday reality that must be navigated. Members desire to see the organization advance and develop, but this is an area comprising both present and future tenses, positive and negative valences. Fulfilling the organization's mission – irrespective of which mission interpretation is being examined– is viewed as an important pursuit. Valuation (determining what is most important) is an integral area of improvement, as members of the organization decide what their priorities and commitments will be when approaching daily assignments.

Knowledge Construction and Sharing

Participants seek to make sense of their work environment in terms of how they understand the array of relationships within and between systems, and work processes. To this point, previous data demonstrate how coordination contains and requires various forms of knowledge constructions. Knowledge sharing can be observed indirectly in coordination-specific activities, as well as in construction-specific sense-making. Thus, sharing questions will continue to be synthesized

and answered with construction related inquiries.

Within-System Coordination in General -Constructing Knowledge

This form of knowledge was gained through experience within a system as one interacts formally and informally with other community members on the job. Understanding was attained through considering their unique position in personal, mutual, and coworker contexts. This section addresses questions 2a: How is knowledge communicatively constructed within activity systems during an organizational change process; and 3a: How is knowledge sharing enabled and constrained within activity systems during an organizational change process?

Constructing who we are together. General propensities among members to promote their espoused system were noted, as well as participation in valuing on the job through identifying priorities. Participants talk about their identity as members of a coherent and successful system. For example, 1 participant said, “We're totally different than all the other shops up here. We do get our work done. You won't hear a lot of complaints, you will hear a lot of compliments (Kurt).” Comments like this imply self-promotion and comparison to other systems. Members generate strong labor identifications through processes that arise through interaction within their own system, thus creating a strong sense of function-based community membership, which establishes other groups as distinct and different.

Constructing coworkers. This understanding was achieved by redirecting commentary away from mention of the self. Outside personal contribution, participants viewed coworkers as disjointed yet engendering a sense of ownership over their areas and responsibilities. Certain comments reflect employee’s torn interests: “Sorry, but if you

don't like it go somewhere else. No I can't go anywhere else, this is the only thing there is, I'm just going to do what I have to (Zane)."

Constructing my reliability. Participants did comment somewhat on their own contribution to their system. They see themselves in a positive light as performing well to meet obligations. They view themselves as effective collaborators who willingly work with others to achieve objectives.

Within-System Coordination –Management, Constructing Knowledge

Any participant who constructed management and also considers themselves part of the management system qualified to contribute comments regarding how within-system coordination produces knowledge about different areas of the "team."

Constructing upper management. Members familiarize themselves with and get to know their management peers by becoming affiliated with other managers (especially of different levels), familiarizing one's self with their management role, and/or comparing one's level of authority to others across the organization. Upper management was constructed as a power façade, and unconscientious of other levels of management and their needs. "Like they said it, at various levels, worker, supervisor, they like what they're doing, they like their job. They feel confident. But at the next level, management, that kind of muddies the water. And each time you take a step up to the next level, the water gets muddier and muddier (Patrick)."

Constructing lower management. Lower management was constructed as precarious and possessing limited power. Many view upper and lower management as a team, but did so by highlighting barriers generated by strong indications of status and lack of clarity as one tier attempts to connect with another.

Between-System Coordination in General

This type of knowledge was gained through collaborative projects or efforts with other systems, as well as by articulating past observations to the interviewer. Participants related understanding by reflecting on instances when their group was engaged in coordination with other shops, by comparing their system, and by considering other systems without regard to their system's direct involvement. These responses provide insight for RQ2b and RQ3b: how is knowledge communicatively constructed between activity systems during an organizational change process; and how is knowledge sharing enabled and constrained between activity systems during an organizational change process?

Constructing others. Workers attempted to construct other shops by claiming that they are largely isolated. Consider the following quote from Ulysses: "We become very territorial as shops. This is mine, don't touch it." Systems are conceited and critical of others. They hold that different communities possess various levels of competence and skill. Many workers are lazy, but still make accountability a priority in most cases. In other words, they only do what is required to complete their personal duties. However, many workers attempt to be collaborative with others and demonstrate knowledgeability.

Constructing joint identity in interaction with others. They constructed their unique joint identity with other shops in coordination by highlighting many positive –and a few negative– workshop takeaways. Many see workshop opportunities (and training in general) as a valuable time to interface with the entire organization. They learned from their interaction with different systems that social distance between areas is strong, as well as a spectrum of effort: "But, you know its not to say that all the workers are good, I

mean we have our problems with them, you know, facilities, you're always going to have some that are really dedicated and some not so dedicated (Frank)." Espousing to a team mentality and negotiating continuous conflict also highlight various tensions that workers from different systems must face when helping each other on common projects.

As an aside, workers understood their unique place in the between-systems arena by validation through constructing their personal reputation (5) garnered from cross-system colleagues.

Between-System Coordination –Management, Constructing Knowledge

This knowledge is shared by many stakeholders either identifying themselves within or without a label of management. Both groups actively constructed who management is, who the workers espouse to be, and each group's unique identity as they coordinate together. Cross-sectional coordination, despite schemes to avoid or otherwise deflect it, is an integral part of the central activity in the organization.

Constructing management. Great attention was paid to management's behavior, through which several designations (mostly negatively valenced) were constructed. These constructions of management differ from those previously included, as these were offered by employees that are outside observers and of the management system, recipients of their structuration. Management, including lower and higher level groups, are viewed as inconsistent, incompetent, and isolated.

> You know, I talked about upper management and the lack of communication there at. I think a lot of it is I'm going to say some names here but I'm not blaming anybody. [Executive director] has a completely different personality than [VP] does. [VP] is likeable, he'll come talk to you. [Executive director] has a

> personality where he's within himself and he just doesn't express any emotion or thanks to people when they do something. (Seth)

They are seen as making certain attempts or approaches at addressing organizational issues. Power imbalances also ensue, which includes a pointed critique that an excess of management personnel overshadows the rest of the employee base.

Constructing workers. A fair amount of attention was also given to constructing workers. Affect issues, such as discouragement and lack of motivation, plague front-liner ranks. They are viewed as isolated, engendering a passive nature. "But not all the workers particularly, not all the areas have that comfort that they'll be protected. And some of them don't want to make the change and if people are not willing to have the behavior or attitude that we'd like… (Barney)." Many are, however, considered supportive, despite a large power imbalance in the hierarchy.

Who we are in interaction with each other. When these two groups interact to coordinate action and knowledge, they take on new characteristics. Employees reflected to construct who they are in interaction with management by *e*mphasizing the importance of workers to management and to the functionality of the university campus. They admitted that there are prominent disconnects in that vital relationship, with much tension accompanying coordination.

Coordinating Elements

The only coordinating elements that addressed knowledge construction and sharing were taken from subject comments on personal opinions and constructions.

Personal opinions and values. This section included principles for approaching

work, wherein leader-member relationships, coordination, change, ethical work behavior, handling demands, and consequences were discussed. Workplace ideals, including supportive relationships, top-down alignment, productivity, shared power, and openness, were also important to participants.

> Well I probably what I like to go out there and give the service to other people that I would like to get the service for myself. I like people coming doing the job with a positive attitude and make me feel good they're there because they want to do the job and I'm their priority right there and right then to do the best they can for me. (Cameron)

Constructing myself. Members of the organization actively constructed their identities during the interview by describing functional tasks and duties, personal labels, and their tenure in the organization. Affect statuses were described through personal discouragement as well as contentment. Members demonstrated their knowledge of the required work and inner tensions about their contribution. "And me of course I feel I'm a lower class. That's how I look at it as. I still feel accepted but there's a lot of times where I do feel like the scrungy old janitor you know (Nick)."

Conclusion

In sum, findings indicate that exclusive and inclusive coordination generate strained knowledge construction and relationships within, but mostly between systems in this organization. Tension exists particularly within management and between management and other systems. Degrees of alignment are achieved through community support, strong personal identification, and employee-oriented managerial attempts to improve culture and process. Misalignment can be traced to wide differences in objects

and rough boundary spanning. Areas and activities are contested, and direct and indirect power struggles persist. In the following chapter, I apply findings to previous research and propose minor theoretical contributions of this study. I also attempt to provide practical suggestions for improving collaboration deficiencies.

CHAPTER 4

DISCUSSION AND CONCLUSIONS

Results provided insight for how systems at a facilities management organization coordinate and construct knowledge during planned change. I found that within different relational contexts (i.e., within and between systems), individuals and communities demonstrate propensities for inclusive and exclusive coordination, which are indicated not only in action but also in how participants constructed knowledge of others and themselves. This chapter uses results to support SAT and CCO. Applications should also contribute to understanding of SAT outside policy contexts. Practical suggestions are provided to help facilities management practitioners experiencing similar challenges during organizational change efforts. Lastly, limitations and conclusions are discussed.

Theoretical Contributions to SAT

Theoretical insights can be gleaned from situating sharing and construction as processes within coordination. As indicated by Figure 3.1, these three processes are understood as iterative. That is, coordination, knowledge construction, and knowledge sharing are repeatedly and continuously articulated, and are often inextricable in action. How system coordination is communicatively constructed holds implications for how a community, or set of communities, within intersecting systems are enabled and constrained as the organization progresses through time and space. Community members

may be constrained or enabled in terms of their ability to make decisions and determine their work. Constraints come by way of authority, social structure, and resources among other elements, and are often enabled by the same. Scholars have given priority to intersystem mediating elements in previous SAT studies, but none have applied analysis to a change context. This study is unique in that it parsed system-level elements from individual and structural levels and observed how each level constrains and enables members during a planned management-initiated change process.

Previous studies of SAT have informed us of the role mediating elements can play (Canary, 2010a). Communicative contradictions that arise during coordination also provide important insight for how coordination unfolds. This study provides support for the propositions of the theory in a unique context by clarifying important concepts, observing contradictions not only as generative mechanisms, but as hindering mechanisms as well.

System boundaries at FM are fluid. The organization plainly self-structures as the campus is built and maintained. However, fundamental shifts are occurring that can be traced to system and subject levels. In the process, membership is negotiated and the institution is positioned in a precarious light. Foundations of SAT will also be supported in terms of tracing CCO flows of self-structuring, activity coordination, and membership negotiation.

In the process of analysis, coordinating elements of various levels were categorized under the same frame: *Coordinating Elements*. As results were emerging during coding, I quickly realized that mediating elements did not fit neatly in within- and between-system themes. Rather, these elements were observable across levels and

systems. In essence, elements such as subject or social structure mediated the interaction as much as other elements such as division of labor or community. The graphic description of activity systems provided in previous research seems to indicate a separation of the subject and the object from activity with those elements contained in boxes outside the system triangle. Results of this project indicate that the subject and object are part and parcel of activity, and should be represented the same as all the other mediating elements. Accordingly, I propose a revision to the graphic representation of an activity system to remove boxes around subject and object, as presented in Figure 4.1.

Results point most readily to an acknowledgement of knowledge construction as implicated in the activities (including sharing) that accompany understanding. Knowledge construction is inversely also comprised of activities (including sharing), so we may observe these processes taking place as any combination of elements mediate coordination. Knowledge construction and coordination pervade activity systems. These cyclical and mutually influential processes of interaction and exclusion are inherent to the system, and play a role in structurating intersecting systems. Hence, members of FM identified with or against the organization in terms of communication related to membership negotiation and organizational self-structuring, which are discussed more detail in connection with CCO. In short, community members within and between activity systems structurate new territory as they experience current and previous territories through tensions arising from contested divisions of labor, clashing dynamics of hundreds of subjects, and other mediated challenges.

Subject elements are one particularly salient site from and at which agency is noticeably squelched in work and planning processes. Although management possesses a

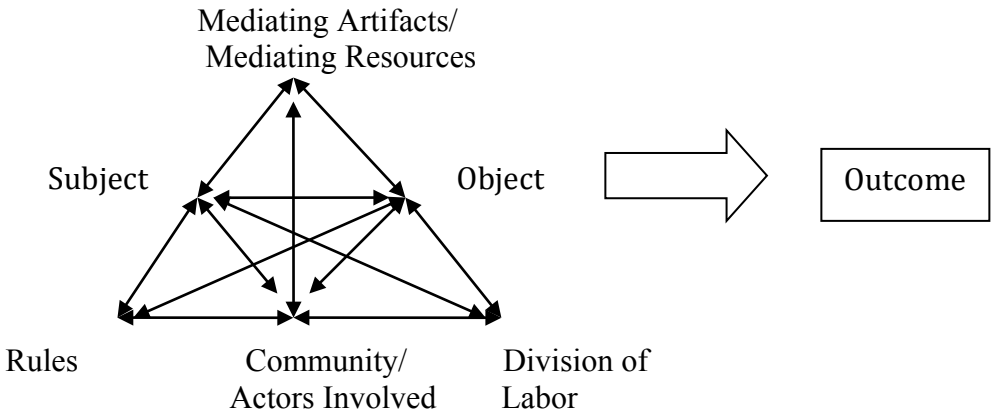

Figure 4.1. Activity System, adapted from Canary & McPhee 2009.

greater amount of agency in terms of their flexibility and freedom to control outcomes and adapt structure, they are constrained by the programs they implement. Subjects in other systems often comply with what management's dictates, but many isolate themselves by withholding key resources including information. Subjects across systems beside management seek flexibility and control over outcomes and how activity is coordinated, so they construct new ways to interact with elements within and without their system. Subtle coordination occurs outside the bounds of managerial control. In essence, subject elements in this facilities management organization bypass constraining structure by introducing subtle forms of interaction and system boundaries. These subtleties produce alignment with certain systems, and tension with others (especially management).

Object-oriented differences exist between all levels, which create a sense of constraint across different levels of the organization. Even some inclusive objects do not enable in the manner they are intended, partly because many systems do not adopt them. Concerns for pre-established, traditional objects facilitate some of the most rigid boundaries observed around systems. Object boundaries serve to constrain the

management system and how systems in general coordinate with one another. For instance, management seeks to implement innovative objects intended to reorient other systems toward progressive goals. They are to consider their own system as a business. However, community members perceive that this object does not align with their central activities, and constrain management's success through refusal to repurpose resources, rules, and other elements. This is an example of a quaternary contradiction, which is discussed in the next section. Presently, this example facilitates an organization-wide dilemma – identification incompatibilities across systems. Incompatibilities are more complex as organizational inclusiveness is translated to system levels.

Fundamental approaches and conceptualizations of work differ, causing individuals and communities to reify system boundaries. They coordinate using mediating elements to demonstrate a spectrum of resistance-compliance. Community members within systems demonstrate a great deal of agency over their elements, especially resources (which include their physical work space). How elements are coordinated across system boundaries define in large part how permeable, and thus communicative, a system is willing to be. Some elements do not influence intersystem coordination as strongly as community, although each element coordination plays a role in defining a system and its relationships with others. Many are preoccupied with what they deem unhealthy characteristics of the division of labor. Explicating different types of contradictions can contribute rich understanding regarding how these tensions and struggles are reified.

Contradictions in Change Efforts

In her exposition on SAT, Canary (2010) outlined the proposition that contradictions can be generative mechanisms to the extent that individuals attempt to resolve them. Insights gleaned from this project illustrate ways in which this organization has yet to resolve contradictions, which left unresolved become hindrances. Beyond mere tensions and struggles, contradictions arose that highlight the conundrum management faces as they seek to implement relatively substantial change efforts in terms of task structure and work responsibilities. Management's efforts to scale change initiatives from abstract, higher order processes to specific assignment order are complicated by various conditions. For instance, members use their agency to understand and coordinate differently:

> Yeah, if everybody would be led around instead of bossed around. It's like my job sometimes, I'll get an email from [Manager 1]. I'm trying to do facility [maintenance]. I do a whole bunch of stuff that I do. All of a sudden I'll get [Manager 2], "Hey don't do that." Well [Manager 1's] telling me to do it…So now is he pissed off at me because I didn't do it exactly how he wanted? He didn't know that [Manager 2] told me not to do it that way. (Zane)

What one manager intends might not only be interpreted differently by a front-liner, but also by a peer. Furthermore, management's fundamental objectives are different in kind from many workers'. Contradictions were manifested in various forms and are understood in terms of primary, secondary, tertiary, and quaternary types.

Primary. Canary, Riforgiate, and Montoya (2013) provided explanations for several types of contradictions. Their concepts are used to explain each type observed

within FM. First, primary contradictions imply that a system element may be used in ways that are in tension yet support overall function. Contradictions are to be expected to impact an organization as large and diverse as FM, with many different trades represented within its functional borders. One shared object is customer service. Virtually the entire organization is keyed into improving customer experiences and outcomes. Customers present major challenges for systems in the form of a primary contradiction. They are perceived as the lifeblood of each system's existence in that worker jobs are dependent on work orders coming in and being completed. Yet customer complaints and demands constrain workers from accomplishing other objects: "And a lot of times I have so many things out there, jobs I've gotta take care of. Sometimes it's not about putting out fires it's about keeping the fires under control, you know (Cameron)?"

Secondary. These occur when new elements are introduced that are incompatible with current system conditions, and present tensions regarding system control and autonomy (Canary, 2010b). For instance, power struggles crop up endlessly over how and when a job is completed. Management expresses often and consistently how they seek to empower the employee base, yet workers continue to feel oppressed. Management seeks bottom-up feedback, yet front liners still believe they are part of an authoritarian "regime" (Frank). New programs and processes involve imposing new rules on systems that in many cases do not align with those already established, or with existing divsions of labor. Workers consequently reject any program, however well intentioned, partly by a recognition and dissatisfaction that new elements do not comport with those they are used to coordinating with.

Despite management's efforts to involve lower levels of the organization through

workshops or presentations, feelings that a power imbalance prevails continue to permeate the ranks of labor. Often the manner in which they collaborate with workers on projects or introduce a new direction to employees remains a sore spot. Part of the animosity among workers appears to derive from simply having to perceive their role differently, but much of it also comes from perceiving that new processes or programs inconvenience their effectiveness. "They've isolated everybody. They've isolated their own shops to function a certain way instead of teamwork. I mean the guys will say oh yeah we're teamwork, well no they're buddy-buddy and they'll have coffee with the guy but to say hey we need to dig that hole so I can come back and repair –they're not going to do that (Diane)."

Tertiary and quaternary. Tertiary and quaternary contradictions can exist simultaneous in the same initiative. Tertiary contradictions occur when a more advanced object replaces a previous one that reorients the entire system and its elements. Quaternary contradictions arise between systems in interaction when central activities come into opposition. In this organization, tertiary and quaternary contradictions are one in the same, as objects are clashing while new objects are being introduced in the same change process. For instance, some managerial members' objective for activity evolution includes desires for work and responsibility to become entrepreneurial in nature. However, many front-line workers continue to hold fast to traditional views of maintenance –that their job is to keep the lights on and keep water in the pipes. They have trouble seeing their job any differently than keeping campus running, especially if their central daily activity is to offer some type of upkeep service, such as cleaning bathrooms or fixing doors.

As entrepreneurialism is pushed from the top, systems are encouraged to add to or alter their functions. Systems find a major overhaul difficult, as a progressive object might not align with their current set of rules, community, mediating resources, subject orientation, and division of labor. This action is intended to do away with the "good ole boy club." In other words, workers are no longer just punching the time clock, but are expected to creatively go about increasing their business and cutting waste. This is met with resistance as a chorus rings out, "If it ain't broke, don't fix it." The directive generates an identity crisis, and threatens to reform long-held personal and system-level objects, principles, ideals, and activities. At times, the solution is to remove non-compliant members: "They hire people that I suppose they see you know a need for those people but from our perspective down here they are not really helping very much (Adam)."

Each type of contradiction currently appears to hinder the progress of change implementations. The stalemate is more solidified as the management activity system continues to interact with other systems, and as systems make sense together of management system. Exclusive communication pervades these contradictions, which imply several practical adjustments for improving the culture and change efforts.

As these observations suggest, foundational flows of interaction are mediating and hindering activity within facilities management, which implies how intricately key CCO concepts are for SAT development. To further demonstrate how activity systems can be understood through CCO processes, major SAT insights in this study will be applied to CCO flows. Boundaries, coordination, and identification can be richly applied to self-structuring, activity coordination, and membership negotiation communication

flows.

Communicative Construction and Coordination within Organizations

Individuals identify with or against systems (including their own) in terms of whether mediating resources, rules, and objects are inclusive or exclusive. They consider themselves part of a particular community to the extent they perceive that their style of coordination is reflective of others in the system. Basically, inclusivity in SAT implies coordination similarity – how closely does one community's action resemble that of another, or how alike are individuals' communication in system coordination.

The four flows model explains how an organization emerges and is sustained through communication among people (McPhee & Zaug, 2000). Results in this study indicated that systems within the larger organization undergo similar processes of boundary establishment as the organization. Much like the essential flows of communication which foster organizing, intersystem change is ongoing and cyclical. Change does occur in this organization, as participant allusions to past events indicated. However, the reality of change might not be precisely what one person describes it as. In order to understand what represents change and what is merely personal perception, we must understand that the organization is grounded in action (Fairhurst & Putnam (2004). If stability is rooted in continuous flows of communication, to identify change is to note progression or shifts as they occur in social practices. If the organization is anchored in continuous flow of action, streams of interaction within and between systems likewise should participate in the same or similar flows. Change occurs when system communication varies from typical organizational, cross-system, or within-system interaction. Change is caused when activity coordination (i.e., communicating and

sharing elements) generates unique outcomes that restructure elements and systems.

"Us/them" dialogue demonstrates a preoccupation among system members and is often a closed frame masquerading as open, especially when reinforced during self-structuring. This kind of structure is more prone to dichotomous positive/negative valence. As members negotiate their own position with "we" –or as belonging to a particular system or set of systems– system boundaries are thrown in flux. Self-structuring takes place in basic and complex ways through positioning oneself and their group in comparison to the rest. Tensions persist and remain when inclusive and exclusive action simultaneously characterizes cross-system interaction.

Perhaps most rich among communicative efforts exuded by intersecting and independent systems is the array of contradictions that are present in the complex change effort at FM. Contradictions emerged as hindering change and progress, as well as maintenance. These emerged as data were compared using the theoretical framework. Analyzing data within one particular area of the framework (e.g., Within-Systems Coordination in General) did not identify contradictions as clearly as comparing one area to another (e.g., contrasting management's object with within-system inclusivity).

Practical Implications

Facilities management organizations undergo constant change, even multiple times per year (Higgins, 2009). Higgins (2009) argued that facilities work can change in different ways, including growing the business or altering business practices. Through analyzing surveys and interviews from facilities managers across the US and Canada, he found that when managers are aware of diverse types of drivers – or change stimuli, they more effectively anticipate and handle impending change. Major communicative drivers

this FM organization management should be aware of include but are not limited to strong isolative behaviors, avoidance, inclusivity/exclusivity imbalance, object discrepancies, and contradictions. Warranting additional attention, members may perceive ongoing change differently than their managers in terms of what they are aware of. Some view change in a positive light while others cast negativity around implementations and managerial efforts. At FM, identification and change are mutually influencing perceptions about communication and processes (drivers), primarily on grounds of enablement and constraint of workers and job efficiency. Take, for example, how the organization utilizes available technology.

AiM, the learning management system utilized by FM, structures work in complex ways. As workers and management tailor technological capabilities to their own needs and preferences, the system becomes neither entirely constraining nor enabling. Nearly all systems involved do not utilize many functions of the technology. As management seeks to change ongoing central activities within various systems, AiM is applied in narrow and short-sighted manners, thus subtly constraining workers to perform work in particular orders using precise accountability measures. These conditions are responded to in various ways. If FM is to integrate AiM as an enabling force among front-liners, management (especially lower levels) must be willing to tap data analysts for engineering personalized applications. As each system personalizes AiM capabilities, customized functions will alleviate at least some inappropriate structure created by applying basic standards to unique groups. Management can invest time and collaboration in considering how useful metrics can be collected while still respecting the autonomy of workers. They can consider how to best monitor the work without causing

their front-liners to sense unrestricted surveillance from above.

Participants confirmed that various forms of knowledge are structurated in this organization. Individual and collective concerns abound across divisions, as well as tacit and explicit forms of knowledge construction. Commonsense and systematic forms of knowledge take form in expressed personal work ideals and principles, as well as through commentary on work processes. Inextricable power-laden knowledge was noted in participants' frustrations and perceptions of their own and other systems. Knowledge at FM relies heavily on experiential impressions and interactions. Members of FM are actively constructing their membership, their leaders, and their daily work experiences. Construction processes creates senses of *me*, *us*, *them*, and *we –me* being a sense (or framing) of self, *us* being my own group or system, *them* being other systems or those who I do not identify with, and *we* being who we are as a cross-system team through our interaction with each other.

Each one can be inclusive or exclusive, and positive and negative examples were found in each category. The key to understanding what is healthy about each one requires paying attention to communicative consistency across each orientation. If an employee has consistency within the *me*, *us*, and *them* frames, but perceive wildly different realities in the *we* frame, they do not experience a unified work environment. Members of FM would benefit by observing the discrepancies across frames, and alleviate disconnects. For instance, management looks to align the levels of the organization. They want supervisors and team leads to consider themselves part of management. They want each worker to understand their place in the big picture, and feel empowered to go about accomplishing their role in the collective. The following, which is informed by the

thematic framework and theoretical applications applied in this study, might help align managerial strategies while respecting worker concerns for their respective areas.

Each system, whether it be electric shop, management, or custodial, can respect the interdependent nature of the others by honoring and adapting to their central activities. Members of FM would do well to consider the following:

- How can I see the improvements in work process I hope for without disregarding the fundamental activities of other shops?
- What solutions can help me accomplish my deeply held objectives without disrespecting those of another?
- In what ways am I inclusive or exclusive and how can I adapt my communication to be more inclusive?
- How can we be inclusive across different levels of the organization?

Honest answers to these questions can yield insights for approaching change with more constructive intent and adeptness. Culture change cannot be outsourced, but rather leaders in various systems can promote healthy and effective organizational change by incorporating inclusive communication across all levels of the organization. Every system in FM can identify ways to incorporate more inclusive language within their communities, and can become more collaborative by adapting their objectives and coordination to others' styles. For management in particular, this means participating with employees in a hands-on way in their implementations and trainings, and for workers, this means extending their willingness to identify with individual and system goals and elements to serve broader organizational ideals.

Also, the management activity system would do well to coordinate in similar

ways other systems do. As they align their communication style to demonstrate that they are willing to avoid exclusionary tendencies, boundaries between systems in general could become more permeable. Indeed, "Organizations must make more than "half-hearted" attempts at implementation to have lasting changes" (Kirby & Krone, 2002, p. 74).

Limitations and Future Directions

As with all studies, this project has limitations. I was not able to recruit a representative from every functional area for this study, only most areas. Findings would have been enriched by included a larger number of participants and by gathering survey data, which could have solidified themes, increased the sample size, or further highlighted contradictions. Because I only interviewed 27 individuals in an organization with a total over 400, I was not able to fairly and equally represent each work division. This could have caused overemphasis in certain themes or omission of important other perceptions that I was not able to identify otherwise.

I would have liked to remain with the organization for a few years to personally observe the effects of implementations as well as how change progresses. I was only privy to observation during my 1-year stint as collaboration consultant. If researchers use a longitudinal approach spanning 2 or more years, more extensive findings could arise out of SAT analyses of change processes in the workplace. However, there are potential disadvantages to this approach. My short tenure with FM prevented me from solidifying my bias at any one point. I preferred certain areas or individuals at particular time periods, but finished my research still uncertain which boundaries I inhabited.

One more related and important limitation includes my personal constraints as

researcher. I was only given certain tasks to accomplish with a demanding time frame to do so. Management constrained the time and type of interactions I had with the broad employee base. I was also limited by their demands as they got behind enough in their work order completion by just attending my workshops so as to prevent many extended conversations outside of our time allotment. Conversations differed between workshops and informal face-to-face interviews.

This study presents several opportunities for future scholarship. Contradictions need not remain dichotomized as generative or hindering. Rather, a focused analysis might further tease out nuances and relationships between contradictions (as I did with tertiary and quaternary contradictions in a basic way), and show different forms can influence change. Researchers can extend our vocabulary beyond unproductive and productive outcomes to more rich explanations of what communication through contradiction does to relationships, mediating elements (e.g., objects), and outcomes.

Another future direction is informed by one salient participant comment: “They’re men, so they don’t want to ask directions” (Rachel). Researchers may seek to interrogate and compare traditional and stereotypically masculine forms of work, especially the trades, to identify how gender is constructed by work tensions and communicative strategies to cope with or respond to change. Lastly, this study can be extended by critical/interpretive scholars by observing how hegemony perpetuates through layers of bureaucratic versus entrepreneurial organizations. SAT can be applied further to tease out potential propositions associated with system boundaries. Such analysis might shed light on how elements structurate and are structurated by boundaries.

Conclusion

Knowledge and coordination are communicatively constructed within and between systems. By structurating knowledge and coordination (and important elements in that process) in what they say and how they frame their experience, participants either actively or inadvertently legitimized societal-level signification and domination structures. They both draw on and reproduce the banes of bureaucracy and the constraints of government/public work in how they operationalize rules and resources, as well as navigate divisions of labor. Mediating elements are coordinated and understood through previously learned structure. As community members work within rules, they structurate (actively construct) new ways of identifying and establishing boundaries within Facilities Management.

Participants legitimized the organization, as well as their own membership – whether or not their comments addressed inclusivity and exclusivity. Participants used their agency primarily in terms of identification as they pitted themselves against other systems, associated with their own or other systems or with other structural levels within and without the organization. Even in constructing constraint, they identified as members of the organization (however strained that relationship might be). In this Facilities Management organization, constraint and enablement are inextricably entwined. The extent to which different systems incorporate inclusive communication makes all the difference in terms of their openness and alignment through change.

APPENDIX A

INTERVIEW PROTOCOL

Following is the verbatim general list of questions I followed as guiding directions for interviews:

1. How is collaboration within your team and among the rest of FM?
2. How would you describe communication among your team? How would you describe communication between teams in Facilities Management?
3. How efficient is your work team? What makes your division work well?
4. In your opinion, what is the purpose of Facilities Management?
5. How would you describe employees' general attitudes of and relationships with other divisions, including management? What role does AiM play in this relationship?
6. To what extent do your employees feel valued?
7. What do employees think about working for the University of Utah?
8. How would you increase collaboration and effectiveness among groups? If you were made director for a day, what would be on your agenda?
9. How would you summarize the culture at FM?

APPENDIX B

THEORETICAL CATEGORIES

Theoretical Themes	Theoretical Categories*	Constitutive Codes	# Ref.
Between-System Coordination in General			**252**
	Constructing knowledge		**120**
		Constructing other shops	**60**
		Constructing our reputation	**5**
		Constructing who we are together	**55**
	Exclusivity		**61**
		Avoiding	**22**
		Cliquing	**16**
		Conflicting	**16**
		Lacking time	**7**
	Inclusivity		**71**
		Coord is good	**16**
		Networking	**33**
		Sharing	**13**
		Utilizing strategies	**9**
Between-System Coordination - Management			**384**
	Constructing knowledge		**154**
		Constructing mgt	**85**
		Constructing who we are with mgt	**30**
		Constructing wkr	**39**
	Exclusivity		**181**
		Avoiding	**30**
		Control	**54**
		Misaligning	**30**
		Opportunity scarcity	**18**
		Undervaluing employees	**24**
		Using AiM	**25**

	Inclusivity		**49**
		AiM focuses efficiency	**9**
		Empathize	**12**
		Involve	**8**
		Problem-solving strategies	**14**
		Provide resources	**6**
Coordinating Elements			**751**
	Object		**80**
		Change	**34**
		Collaboration	**15**
		Stability	**31**
	Outcomes		**79**
		Change	**17**
		Decreased effectiveness	**18**
		Fulfill mission	**12**
		Org advancement	**6**
		Unification	**20**
		Valuation	**6**
	Social structure		**290**
		FM	**211**
		Institutional	**58**
		Societal	**21**
	Subject		**302**
		Constructing myself	**88**
		Exclusivity	**17**
		Inclusivity	**30**
		Personal opinions and values	**127**
Within-System Coordination in General			**153**
	Constructing knowledge		**66**
		Constructing coworkers	**21**
		Constructing my reliability	**4**
		Constructing who we are together	**41**
	Exclusivity		**21**
		Isolating	**12**
		Restricting	**9**
	Flexibility		**18**
	Inclusivity		**48**
		Advising	**13**
		Joining efforts	**16**
		Proactive info sharing	**12**
		Respecting others	**7**

Within-system Coordination - Management			**76**
	Constructing knowledge		**48**
		Constructing lower mgt	**13**
		Constructing upper mgt	**24**
		Constructing us as a mgt team	**11**
	Exclusivity		**16**
		Hasty top-down actions	**10**
		Stagnating ideas	**6**
	Inclusivity		**12**
		Respect	**7**
		Support	**5**

***** *Note:* References for "Theoretical Categories" are aggregates of the Constitutive Codes

APPENDIX C

FEEDBACK SUMMARY

Collaboration/Leadership Workshops
Facilities and Construction Operations, Fall 2014

Introduction: This document offers a summary of feedback shared by employees in Facilities and Construction Operations. It is organized into three main sections: ***Information Issues***, ***Structural Issues***, and ***Leadership Issues*** –with **proposed solutions** for each topic. An additional section highlighting concerns and striking quotations is also provided, concluding with final comments from the collaboration consultant.

Information Issues

- Communication deficiencies prevent us from achieving our vision
- A sub-culture of fear/blame exists across the organization
    - Remarks like "workers are replaceable", "there's the door", "we don't have enough turnover here", and "a line waiting for your job" have left a lasting impression
    - Morale is low
    - We feel like numbers, disposable, and undervalued. "Front-liners are an afterthought"
- AiM Challenges
    - Work order access is too limited and creates barriers to collaboration
    - Not utilized properly by certain employees
    - Does not translate well across the entire organization
    - The process facilitates the design of the system, not vice versa
- We do not feel safe approaching any level of management
    - Our questions and concerns are either not heard or considered strikes against us, largely because many expectations are not clearly defined.
    - Groups recognize constraints and efforts of management, but doubt their willingness to follow through on long-term intraorganizational communication and collaboration. Little faith that there is enough organizational will to change.
- Inspectors accentuate the negative and skimp on the positive

- We do not inform our customers well enough in terms of project management and completion

Proposed Solutions

- Authentic communication targeted at recognizing and increasing workers' value, avoiding harsh remarks
- Open and direct communication channels throughout layers of the organization
- AiM daily assignments rethought:
    - Time taken to complete notes balanced with task productivity
    - Nearly complete access to phases and completed work orders allowed
- Find a way to educate customers better (specifically differentiating ourselves from the competition)
- Management proactively transparent with the organization about what they heard from workshops, what will be done, and how they will continuously follow-up
    - Emphasis that management think critically, be open-minded, and reflect deeply and seriously on feedback
- Front lines of the organization are calling to be involved in –or at least better informed of- decisions and directions typically reserved for upper-management. Customers can also be more integrated in communication flows
    - Rationales for decisions shared more often with entire organization

Structural Issues

- Formal organization is top-heavy, with too many tiers in the hierarchy
- Big picture budget is not considered, only on a project-by-project basis
- Too few resources (tools, technology, money, staff, time)
    - "Do more with less" is an understood theme
    - Tools are not accounted for or updated regularly
- The University is expanding but Facilities is not. This is generating great concern across divisions
    - Opportunities seem scarce for employee development
    - Disconnect as growth relates to stagnant pay raises
- Imaginary boundaries of different kinds exist between work groups. Employees know not to overstep them
- Policy needs to reflect relationships –both with customers and between managers and staff
    - Policy informed by those who implement it (the workers)
    - Creativity, knowledge, and innovation are not shared (largely due to a generation gap)
    - Management silo has been strengthened unnecessarily while ground-level teams lack personnel and resources as they tackle ever-increasing demands

Proposed Solutions

- Managers "putting on jeans" and doing more ride-alongs
    - 'Bottom-up' workshops for management. What for? (1) An opportunity to become more familiar with daily work, (2) communication skills training
- Success and expertise determined by more diverse measures, not just by

simply completing work orders
    - Same standards of excellence (training, experience, work ethic, quality service) apply to everyone, not just certain shops or certain levels of the organization
    - Personal assessments and accountability for managers as well as employees
- 'Title swapping', or the tendency to relocate people, to be meditated and justified
- We would save money on the backend if maintenance is given a level of precedence in design phases of projects (e.g., more safety clip-ins installed in rafters, maintenance workers' opinions to be sought after)
- Invest in employees
    - Redistribute funds to provide respectable pay raises or end-of-year bonuses
    - Training should be accessible (via videos or a digital database)
    - Reintroduce specialization/educational benefits
    - Quality educational opportunities (both academic and training-oriented) offered to alleviate lack of expertise
    - Emphasis on education concerned with position in consideration, not just applied universally to mean a B.A. Promotion not determined by formal education alone, but considers how to develop *expertise*. In conjunction, expertise valued and fostered through state-of-the-art training and opportunities (communicated openly)
    - Experience/tenure pay disparities to be alleviated. The organization can be more transparent in accounting for pay distribution
    - Safety training should be updated to be specific and adaptable (especially for those with disabilities and other special circumstances)
- Hiring focused toward work teams rather than administration. Supervisor assignments are ineffective, with many reporting loops that should be cut
- Flexible reporting mechanisms to accommodate special circumstances
- More consideration for past systems and knowledge

Leadership Issues

- Many terms were used to describe management as authoritarian and engaged in harmful control
- **Making sense of the vision:** Money, pride, trust, meeting needs, keeping our jobs, privatization, competition, commitment, sharing, caring, relationships, customer-centric are all terms that come to mind. Underlying assumptions include outsourcing and replace-ability of workers. Overall it's a good vision, but our approach to achieving it needs to change drastically. Given current approaches, this vision is a contradiction. Morale, trust, and service should be key concerns.
- **Making sense of the values:** Each value is interconnected and vital. For some, this is the first time they've seen the values. They should be holistically considered (long-term). We need them all, and could add to this list, but should not take away from it.
    - Values only work when all are observable
    - We are not *recognized* in several ways

- *Innovation* value needs the most improvement
    - Aspects of our culture do not support the vision and values
- We might consider as sixth values *trust, communication,* or *integrity* (because we are lacking in these areas)
- These values are applied among front-liners
- Intimidation from leadership has created a culture of bowing to or obliging authority and submission
    - These are upper management's vision and values. They set the rules, and we all walk in toe. Some leaders exemplify these, some don't
- We are preferred for our quality service, which has gone down in recent years due to poorly implemented change
    - Change is haphazardly implemented, and little consultation is sought from the front liners
    - Change implementations should be logical, respond to needs, and communicated from the outset through wide and consistent organizational communication.

Proposed Solutions

- Vision or values could be adapted to include worker's sense of accomplishment, worth, and advancement
    - Management might consider adapting vision through continued collaboration in similar format as workshops
- Stop making assumptions about employees, and stop verbalizing those assumptions to others.
    - Employees yearn to feel that they are part of a family. They are willing to commit themselves as part of a work family, but more often feel excluded
- Competition could be reframed. We will save money in the long term if we take more control over our campus and buildings (design and maintenance). Employees seek to be customer-centered, and hope management will seek to be competitive with other employers.
    - This would require that craftsmen are respected as they once were
    - Students are our customers, not contractors
- Support front-liners by *allowing* them to innovate, be excellent, safe, etc.
    - Efficiency and collaboration focused at the supervisory level. Staff are empowered to do so only so far as their supervisors allow
    - This involves supervisors being less concerned about petty details, and more intimately involved in personally training individuals
    - Front-liners want more structure, but in the form of improved training and inclusion rather than control by supervisors and management

Shared Concerns That Stood Out

- "I would like management to better understand the frustration of its employees and place a higher value on providing a place that people want to work at…thank you for trying to open up communication, please show us you're listening."

- "Expertise should be fostered, not forced."

- "Change is one-sided and hasty" … "If it isn't broken, why fix it?"
- "Maybe management will realize that if they want us to improve or act more happy they will respect the employee base by promoting pay increases for most…lose about two layers of the bureaucracy and shift that pay to those who produce"

Conclusion: In my experience facilitating workshops, I learned a great deal about the work environment and employee perceptions about the organization. It was my pleasure to rub shoulders with the very best in facilities management. I encountered a range of perspectives, many of which were concerned for the welfare of the department. In sum, I assess that in many cases relations are strained, apprehension is high, and morale suffers. I have greatly appreciated the opportunity to serve this organization, and hope that this feedback can provide a starting ground for considering how continuous open communication, appreciating member expertise, and morale can be fostered.

-Kody Hansen
Collaboration Consultant

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